The Miniature Camera Monthly-For EVERY CAMERA Use

JUNE 25¢

THE CONTRICT COLORS OF THE PROTECTIONS

ICTORIAL ANALYSIS - PROTOGRAPHYS PARTIES



BLACK-EYED SUSANS

By MARIO VITTONE

"Too many flowers",—that is the criticism of most photographs of flowers, whether in black and white or in color. By limiting his composition to three blossoms, lighted from behind, the cameraman achieved this dramatic effect. Exposure 1/25th second, f5.6. Black and white print toned yellow.



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"Hold the Model"

Sirs:

I have found all the copies of MINICAM very interesting and instructive. In the March number, two articles especially attracted my attention: "High Key Portraiture" by John Hutchins, and "Camera Holds." However, the unusually attractive model used in the latter led me to think: what young man would need suggestions on how to hold the model!

Acus R. Edwards.

Laramie, Wyo.

#### Drying Prints

Not having an electric print dryer, I have found that using the warm air current of an electric hair dryer is an ideal method of drying prints thoroughly in a few minutes. For glossy prints, squeegee them to the ferrotype tin and slowly move the dryer across the prints, keeping it constantly in motion. In just a few minutes, they will pop off, leaving no rings whatever.

For matte prints, roll them between two blotters, then proceed with the hair dryer. The prints will dry in about 5 minutes and you will be able to trim the edges and do any retouching that is necessary. I have dried miniature contact prints and enlargements up to 11x14 in this way. A cheap hair dryer costs about \$1.00.

CATHERINE NIEMEYER. St. Louis, Mo.



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\*

#### Photo Finish

Here is a "photo finish" decision at first base. The runner was called out although the photo shows the ball was still in the air when the runner touched the base. Not only that, but the first baseman's toe was off the bag.



Taken during a high school baseball game with a Kodak Bantam Special, Super XX Film, set at f1/500th second:

Baseball teams would do well to have cameras stationed near first base and home plate to record close decisions.

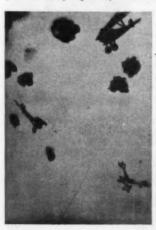
Norwood, O.

BILL HARRIS. Fine idea! We are in favor of photo finish re-cording machines at baseball games. How a pho-to finish camera works at a horse race will be told in a forthcoming issue of MINICAM.

#### If War Comes

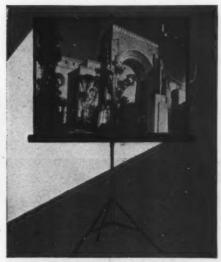
Sirs:

The attached picture may be of interest to your readers, especially Veterans of the Air Service who



did their bit in sunny (?) France and fought in the battles of Vin Blanc and Vin Rouge. The identity of the observer who snapped this air battle is not known but it shows plainly the markings on the planes, the blobs of the anti-aircraft shells

and the thin, faint line of tracer bullets. The two French Nieuports above seem to be giving the German plane a very bad few minutes which probably were fatal. The Nieuport was one of the best fighting ships of the Allied Forces, ranking with famous French Spad and the equally famous British S. E. 5 and Camel. Cincinnati, O. C. S. HOWARD.



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#### "Grace In Action"

Sirs:

H. J. Dailey of Toronto, Canada, regrets that he does not have a stereo shot of

"Grace In Action," page 15, your March issue.

March issue.

I sympathize with him, but my



sympathy even goes further. Enclosed is the best I can offer by way of substitution. He can enlarge it to fit his stereo viewer.

Sorry, the dimple is not visible, but take my word for it—it's there.

EVERETT W. SNYDER.

Syracuse, N. Y.

#### Amateur's Darkroom

Sirs

Much discussion is given to the art of photographing, but little space is given over to the dark-room itself. I converted an old closet measuring 8 feet long, 3 feet wide and 7 feet

high into this dark-room. The picture shows one end only of the room, the other end contains a small table-shelf where I keep paper cutter and ferrotype tins.

In this picture can be seen the enlarger, developers, etc., easel, developing and fixing trays, film developing tank, and plenty of



printing paper. Films recently developed are shown hanging up to dry and a roll of negatives in the enlarger ready to be enlarged. All light switches are in easy reach in the dark at my left hand. The Foth enlarger is one of the best I have seen in many price ranges.

ROBERT B. DICKERSON.

Hanford, Calif.

#### Roll Film File

Sirs:

The other day I decided to throw out my collection of worn out flashlight batteries when I had a happy inspiration. The cardboard shell around each cell is about 2½ inches long and provides a swell storage box for roll film up to No. 120. The No. 120 film projects out the side just enough to make removal from the tube easy. The natural tendency of the film

to curl and spring outward causes it to stay in the tube. The cardboard shell has plenty of space on the side to write any necessary identification.

BYRON C. BAIR.

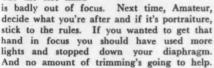
New Philadelphia, O.

"Self Criticism"

What's wrong with the enclosed picture, my first attempt at indoor portraiture made with

the assistance of your May, 1938 article "Heads Up," your January, 1939 article "33 Rules for Enlarging," and my very co-operative niece Barbara?

Her expression is good. She can't make head or tails out of the stuff Aunt Peggy pores over. And there's human interest but the left hand



You can't leave MINICAM poised in midair with nothing to hang to. Also, look at what else you've done. MINICAM's all haywire, with the front where the back should be. Don't take that advice that a negative can be reversed in the enlarger too literally, especially where there's printing in the picture. Barbara's dress presents too many conflicting lines. A plain colored skirt would have been better. And topping it all off, look at those dust spots on the print. Next time see that everything's dusted well before you begin your darkroom labors. Remember that cleanliness is next to Godliness, especially in Photography. Dust yourself off, too, if necessary. Well, how's this for self-criticism?

PEGGY SAUL.

Los Angeles.

 Criticising prints is a crackerjack way to learn how to make better ones.—ED.

#### Lot Out of Life

Sirs:

When you're driving down the road and the rain begins to fall; when you'r windshield wiper fails to work and rain drops gather on the windshield until your vision is blurred; when the highway becomes slippery and you're not quite sure whether you are in the middle of the road or safely on the right hand side—



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then it's time to pull off to the side, stop the motor and get out the camera to record the "pitter-patter" on the windshield. Then reach for that May issue of MINICAM that you tucked away in the glove compartment and read the article about Mr. Avers and his daughter. It will show you how to get a lot out of life within the realm of your own family and maybe by that time the rain will have stopped.

McAllen, Tex.

#### Table Top

Herewith is a tabletop photograph taken with a 38 year old Century camera, 5x7

adapted to 4x5, on East-Portrait man Pan film at stop f45 and exposed for 35 seconds. One No. 1 pho tof loo d provided the illumination and a picture calendar was the background. little house is a souvenir from the old



DON R. BARTELS.

country and measures 2 inches at the base. The negative was developed for 18 minutes in D-76.

J. W. FENNER.

Chicago, Ill.

For more information on table-top photography, indoors or out, see the pictorial analysis in this issue, "Drama Atop a Table."—ED.

#### 16 mm. Cine

I would like to exchange 16 mm, cine films with other amateurs.

JOSEPH J. CARROLL. 2845 So. Camac St., Philadelphia, Pa.

• "Oh, I'm sure you can pass him! He isn't very feet. Only





By A. J. EZICKSON

THE thoroughbreds were thundering down the stretch at Jamaica racetrack. Newsmen with shutters set at 1/1000th of a second were primed to click the finish when someone yelled, "Duck"! One photographer ducked. Missing the shot, of course. He's resolved to slay the next guy who ventures the shout.

Meet the man with the white camera and the first prize winner in Editor and Publisher's fourth annual News Picture Contest-Ray Howard, New York Journal-American photographer. He won it with his startling news shot: "Death on Fifth Avenue," showing the driver of the smashed auto sitting stunned at the wheel while the crushed body of one of his women companions, both of whom were killed, lies on the nearby pavement. Ray was driving up Fifth Avenue on his way to cover a story when he heard a crash but two blocks away. In a few seconds he was right on the job. There was no time lost fishing for a holder or rigging up his speed gun. Ray always has his box ready for instant action: loaded holder inserted, gun in place, and focused for an 18-

Glimpsing the world on a leave of absence, Harry Freeman, staff photographer on the Morning-Herald, Sidney, Australia, had heaps to relate when he returned to New York recently. He was the first news cameraman to accompany the Nazi troops when they crossed the German-Czech border 15 seconds before 2 o'clock on the morning of October 1st. An army man was at his side every time he made a shot, and down on a memorandum pad went something like the following description: (1) People at crossroads waving to troops; (2) Old man alone grimly watches passing troops; (3) Closeup Czech customs house, and so on, which in turn went to commanding officer at end of day for his own personal censorship.

If okay, Freeman would then have his undeveloped negatives sent to Linz where they would be processed, printed and then given final examination by the press censor. From there to Vienna to be telephotoed to London, and packages of negatives and prints airmailed to both London and Paris. A full set of prints were kept by the German military for their own

# -MINI-

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#### The COMMONWEALTH Mfg. Corp. Dept. A-2 4206 Davis Lane Cincinnati, Ohio

files. Freeman used both a Contax and an English 9x12 cm. press camera.

The picture boom is still on the up and on. According to a survey made by Jack M. Willem, research director in the Chicago office of the Stack-Globe Advertising Agency, the use of news pictures in 1938 rose 16 per cent over the preceding year. The average number of pictures per daily newspaper issue is now 38 as against 32 in 1937 and only 21 in 1931.

Further jottings from Freeman's memory book: All the Nazi photographers wear special uniforms, much like the Army's, and have special armbands . . . they must never turn their backs on Hitler and after making their pictures must retreat backwards . . . at the Munich Conference, one of the Nazi shooters had four minnies slung over his shoulders, one for Hitler, one for Chamberlain, one for Mussolini, and one for Daladier, all designated with the first letter of each name . . . so as to keep his editor straight with the number he took of each person . . . (no doubt the Hitler roll was given first development) . . . the French photogs use a motley assortment of cameras, both plates and minicams, are alert and excitable while on the job and have many a tiff with the gendarmerie and the people they photograph . . .



### **Spotless Prints**

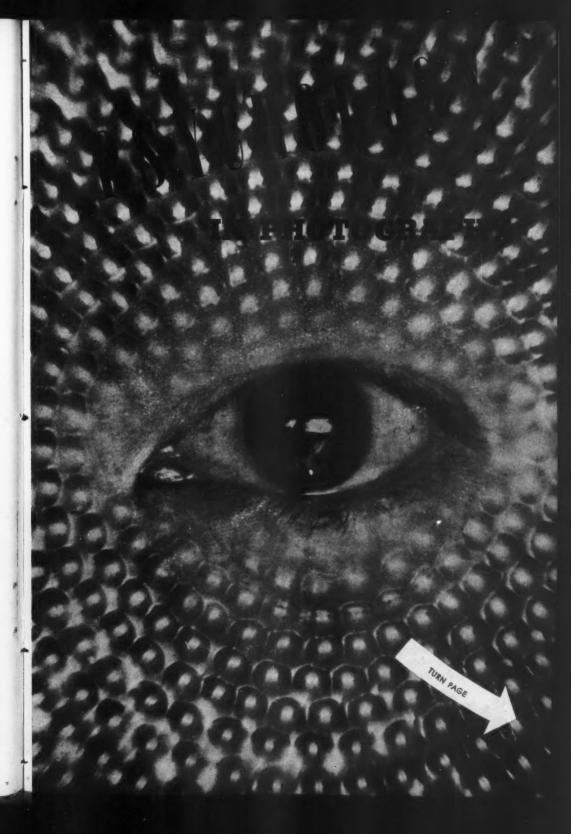
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#### Psychology and savages provide clues to the fascinating study of how humans react to cameras and to photographs seen for the first time

By RALPH LINTON, Ph. D. (Professor of Anthropology at Columbia University)

THE camera today has penetrated to the remote corners of the globe and there are few primitives who have not had experience at some time or other with the mysterious black box which catches a man's image and puts it on paper.

The native's reaction to his first sight of a photograph is one of confusion, the degree of his bewilderment depending upon the sort of pictorial art to which he is already accustomed. There are some primitives who have never conceived of the notion of trying to depict a man, their art being limited to simple geometric designs painted on pottery or woven into baskets, and it takes such natives some time to realize that the figures in the photograph represent a person. Other primitives may have a highly sophisticated and elaborate pictorial art of their own, but such arts are always formalized. They make no use of perspective or shading and represent human beings in some definite stylized way.

They do not expect to see men shown as they actually look. What we would consider the three dimensional quality of a photograph does not register with them. For example, they never feel behind it for the object as they may do on first looking into a mirror. Accustomed to simple line drawings, they find the background and contours a troublesome clutter of details which obscure the real picture.

The absence of color troubles them also. Visual images are registered in their minds as a whole and when natural colors are replaced by shadings, they are at a loss.

that the cam-was a machine strings

However, this bewilderment is only a first reaction, and any native, after a little study, is able to understand and interpret a photograph.

The fact that the white man is able to capture their image and fix it on paper astonishes them less than might be expected. In a world of magic, a little more or less does not cause surprise. The white man is obviously a great magician. If he wants to do this sort of thing, naturally he can arrange it. The feeling about having pictures taken varies with the native group, but one is almost certain to encounter either one extreme or the other: they either have a strong objection, or they love it. Even those who enjoy it, however, regard the process as a bit of rather pointless play. As a native artist

A native seeing a mirror for the first time, will try to see what's behind it. But not so with a photograph. A native would not recognize his own friends in a photograph seen for the first time. The cameraman with the Rolleiflex (below) is Kurt Severin who has traveled through the wilds of Panama, Bolivia and other uncharted parts of Central and South America. The Indians are Goajinas of Colombia, South America.





The study of primitive tribes furnishes insight into the reactions of modern people. Children, being as uninhibited as savages, also are good material for study by the photographer who wants to understand how to make people react and how to photograph their emotions.

Children at a parade, above, §5.6, 1/100th second.

in the Marquesas once remarked to me: "What is the good of making a picture look exactly like a man when it will not

feel like one nor smell like one?"

Natives who object to being photographed do so for one or two main reasons: either they do not understand what you are doing, or they do understand but object to having a part of themselves put on paper. There are some groups in the outposts of civilization who have never seen a camera and who are genuinely terrified when the sinister black box with the shining eye is

pointed at them. In the magic-ridden world of the primitive, anything unfamiliar has potentialities for malevolence. In such cases, the photographer must set to work to convince the natives of his friendly intentions and give some logical explanation for the use of the camera.

One friend of mine who was trying to get moving pictures of pygmies in the interior of New Guinea found that his subjects fled at the appearance of the camera until he hit upon the happy idea of telling them that the black box was a machine for making strings of beads. It was something of a sleight-of-hand performance to turn the crank of the machine with one hand and slide a length of

 Pictures for magic The native thinks be can bring harm to as enemy by mutilating an image or a picture of an intended victim.







Ralph Linton, Ph. D., professor of Anthropology at Columbia University, made his first field trip in 1912 when he was nineteen. With camera and shovel, he filmed and dug among Indian ruins in New Mexico and Colorado. Since then, he has studied, photographed or lived with many primitives including tribes in Guatemala, Madagascar, Rhodesia, Tahiti, the Marquesas Islands and the Tuamotu archipelago.

bright beads out of the box with the other, but my friend mastered it and the pygmies flocked about delighted with the beadmaking machine.

I was at one time collecting a series of portraits for scientific record among the Tsimahety in Madagascar. These people had a profound distrust of the camera. which they regarded as some sort of evil eye. I was unable to persuade them to sit for me until I explained that the camera was a necessary accompaniment to my doctoring. All natives have great faith in white medicine and the Tsimahety had been clamoring for quinine and salts, a supply of which is all that is necessary to establish one's reputation as a doctor. However, this white medicine, though effective, seemed disappointingly simple in comparison with the chants and antics of their own medicine men.

When I told them, therefore, that the gleaming eye of the camera was to suck the sickness out of them after they had taken the medicine, they found this a satisfying supplementary treatment after a bitter dose of quinine. As a result of this explanation I had more subjects than I could possibly handle. The camera itself was treated with great care and respect. There was no danger of a careless bearer leaving it behind since it had power to cure his people of disease, nor of dropping it since a superstition grew up among the natives that if the box were broken, all the ills which had been sucked into it would be loosed among them like the troubles from Pandora's box.

However, such simple aborigines are rare. Most natives know exactly what the photographer is up to and it is very unwise to attempt to fool them. Nevertheless, the camera fan is very likely to encounter natives who have a genuine objection to being photographed, based, not on fear of the camera itself, but on sound reasoning in terms of his own philosophy. A native may wear a store-bought suit of clothes and drive a Ford yet retain a firm belief in the reality of malevolent magic.

One of the most wide spread of magical beliefs is that if an enemy can obtain an image of you and wreak injury upon this image, similar injury will occur to your person. The picture that comes out of the

• If the photograph of a Mohammedan of the Sahara arrives at the seat of judgment before the real person, the latter will find his place in Paradise taken, causing him to be left arguing with his photo double.



white man's box is the most perfect image of all and as an exact replica of the person, it also carries part of his personality. If such an image falls into the hands of an enemy, the subject is as good as dead. If the enemy pokes out the eyes of the photographed individual with a sharp stick, the man will go blind; if he tears an arm from the photograph, the man will break his arm. Thus the primitive's horror at having his image fall into the hands of a total stranger is quite logical

(Page 75, please)

The native carriers feared that the camera, if dropped and broken, would, like Pandora's box, release a swarm of plagues and diseases.



# The MAGIC Tree

By Mario Scacheri

THIS Magic Tree travelogue goes to show not only how dippy a photographer can get to be if he does not come under the proper restraining influences, but also how easy it is to make a two-part montage if one negative is a nice black silhouette.

It will burn into almost any picture and it may even make a fairly nifty shot out of two dull or so-so pictures. To make the montages, I make a print of a scene, stick it under the enlarger, and project the tree negative, adapting its size and location to the print. Many a dumb scene can be improved by burning a dark branch across

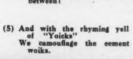


(1) The Magic Tree in its pale sky
Proclaims that photographs can't lie.

the white sky, or branding the silhouette of a human figure into the background. Of course the silhouetted branch, tree, etc., must have a blank white background as in (1), above.

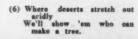


(2) Till liars photograph a scene And stick the Magic Tree between!



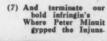


(3) It next beguiles a simple hamlet.
For truth we do not give a damlet.





(4) Along the Hudson now we swirl To find some tanks chuck full of erl.









# MIRAGEPH



[18]

# OTOGRAPHED

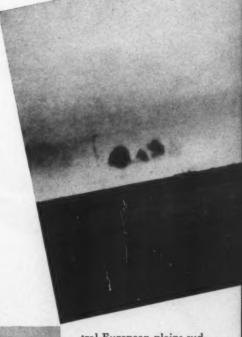
By DR. WOLFGANG VON ERTZ

A MIRAGE, in literature, is a hallucination of heat-dazed eyes and a thirst-crazed mind. It is a deceptive appearance, an apparition, a chimera that leads the traveler toward an oasis that is never reached.

In reality, the camera has proved that a mirage is a normal illusion, an actual phenomenon that can be captured on a negative.

Mirages are due to conditions of the atmosphere and are extremely common in some localities.

They occur during the summer months in the Nagy-Hortobaggy district near Bebreczin, Hungary. The monotonous Cen-



tral European plains suddenly appear to become flooded with lakes and on the surface of the water the observer sees restlessly quivering church steeples, groups of trees, riders and peasants going to market.

A mirage is caused by heating of the air near the surface of the earth (Page 101, please)

- Enlargements from the photograph of a mirage on the previous page. The black puff (top photo) are smoke from a train which appears to be running on the water of a lake.
- Phantom carriage (left). In the mirage, the horses' lega are distorted as if by reflection from a bent mirror. The mirage appears to "ahimmy" like an image in a windblown lake.





DREAM RIDERS

By KALMAN SZOLLOSY

For original and dramatic interpretation of a subject it is set into motion and shot in action. Action is dramatic approach No. 1.
 Zeiss Super Ikonta B, 6x6 cm. (2½"x2½").
 Zeiss Tessar [2.8 lens. Pan film, exposure f5.6, 1/200th second.

) DR

#### Let your camera think in terms of action, backlighting, design, angle, framing and atmosphere

By CARLETON MITCHELL

THERE are many approaches to every subject, but the foremost methods can be stated in a few rules. Ordinary, everyday subjects are the ones which most demand the use of a dramatic approach in order that trite material may be transmuted into bold, attention-compelling compositions.

What is the most frequent criticism heard of pictures? "It's static!" Experts and neophytes, alike,

justly criticise prints on this score.

To get a feeling of motion and life into a picture, it is not, of course, necessary that the subjects be caught in mid-air, at the top of a leap, as in Fig. 1. A pointing finger, a suggestive gesture, a distant cloud of dust—one slight but significant detail can put the breath of life into an otherwise static composition. Get your subjects doing something. Action

is dramatic approach No. 1.

Backlighting (see Fig. 2) is a device that is widely discussed, but many workers fail to use its beautiful effects. Perhaps this is because the first rule taught beginners is the old one of having the sun behind the back before clicking the shutter. For backlighted shots a sunshade must be used. Direct rays of the sun should not be allowed to fall on the lens, or halation ("flare") will certainly result. On reflex cameras this is immediately apparent; on direct vision finders it is not always so easy to tell. Hold your hat so its shadow falls on the camera lens. Expose for the shadows.

Angle is exclusively a camera device for emphasis. No painter could utilize point of view so effectively and so easily as the camera has done in Fig. 5.

Shooting from unusual angles is easy because the miniature camera is so easily handled. This may be overdone, some workers going to the extreme of never taking a picture from a normal viewing position; they deliberately seek distortion. Sometimes this results in original and striking pictures, but unless done with taste and judgement is likely to make





- Backlighting
  (top) is a device that is
  more often discussed than utilized. Agfa superpan film,
  1/100th second,
  55.6, yellowgreen filter. By
  Carleton Mitchell. Fig. 2
- Design may be found in ripples of water, in the arrangement of paving blocks or in a pattern of rooftops. Here it is a lighth ouse 1 on s, 1/25th, f2.8.

  Fig. 3

# AMATIC APPROACHES

the beholder uncomfortable. Although man burrows through the ground and occasionally takes to the air, his perceptions are those of neither earthworm nor bird.

Approach every subject from its most interesting, pictorial, and instructive angle, but don't deliberately try to secure the bizarre unless the subject is a bizarre one. Fragments should have a relation to the whole. Use angle for emphasis, not for wanton distortion.

Atmosphere is a dramatic approach more subtle in application. Atmosphere seeks to provide a mood or to give locale. Under the first type we have sunset or moonlight effects; clouds of all densities; calm, storm, or fog. These give a mood—a shot across a placid pond, reflecting trees and perhaps grazing cattle, gives the beholder an impression of peaceful serenity. On the other hand, a shot of a sky filled with dark clouds, the pond surface ruffled,

trees bending and cattle hunching against the wind, gives the impression of storm and unrest. The same subject photographed from the same spot may convey differing impressions. When trying to capture a mood of nature to get across a definite feeling, make several exposures at varying stops and speeds and filters, but don't forget that subject matter must match the mood.

In striving for "locale" atmosphere, include material that is native to the setting. Use subjects in relation to their background, and avoid standard patterns.

Framing is used when objects in the foreground can be composed to give emphasis and direction to the subject, yet leave it the undisputed center of interest. In a picture of this type, as in Fig. 4, the lens is stopped down to keep the foreground and distant subjects in focus. Use a tripod if possible to allow a slow shutter speed and a small diaphragm stop.

• The picture-frame type of composition uses the foreground to give emphasis and direction to the subject, yet leaves it the undisputed center of interest. The ship is the H. M. L. T. Firebird. Her whaleboat is in the middle distance. Photographed on an early June morning at San Salvador, British West Indies. Columbus landed here on his first voyage in 1492. Contax II, Agia Finopan film, 1/25th of a second, f8, Gl filter. By Carleton Mitchell.

FRAMING AND ATMOSPHERE

FIG. 4





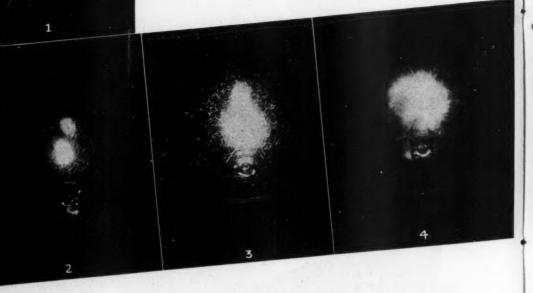
• Angle and atmosphere are called upon to make this dramatic portrait. The shawl and the sunlight combine to give the locale of this study of a beautiful peasant type. For emphasis, the camera was held at a low angle, about three feet from the ground. Exposure, 1/50th second, /8, Rolleiflex camera. By Relang from Three Lions. Fig. 5

It is important that foreground material does not destroy the composition by leading the eye away from the subject, or introducing any unpleasant masses that overbalance the rest of the print.

Framing is most familiar as used in scenic pictures, such as land-and-seascapes. The photographer can make excellent use of small trees whose branches form natural frames. Architectural workers often frame their shots through a door or archway. Other less obvious subjects also lend themselves to this treatment, often with telling effect.

Design pictures (Fig. 3) are interesting and striking when made properly. Subject matter is almost unlimited, except that there must be a rhythmic pattern. Typewriter keys, stacks of lumber, beach ripples, rows of wheels—anything, in fact, can be composed in a way to give that "different" effect we are seeking.

# PHOTO OF



1.

The earliest stage. (See photo at top of page.) The bridge wire is glowing but still intact and it, and the terminals, appear in the surrounding glow. Loops of the fine alloy wire not yet ignited can be seen above the terminals. The area covered by the illumination is only about one-quarter inch square.

2

The alloy wire in the center has been ignited. There is a second center of combustion higher up probably started by a flying fragment of whitehot material. There is not yet enough light to show up the cardboard disc in the base of the bulb.

The conflagration is now well under way, the cardboard disc in the bulb shows up clearly and the center of the bulb is filled with flame. A small hot particle has shot out towards seven o'clock and has left the image of its trail.

4.

Combustion is spreading out regularly. The bulb is giving out more light.

5.

The white hot area is spreading but around the edge a quantity of the fine wire filling is still unconsumed. (Next page.)

6.

The Illumination has now reached the peak of its intensity. All the fine wire has been ignited and the bulb is emitting an intense white light.

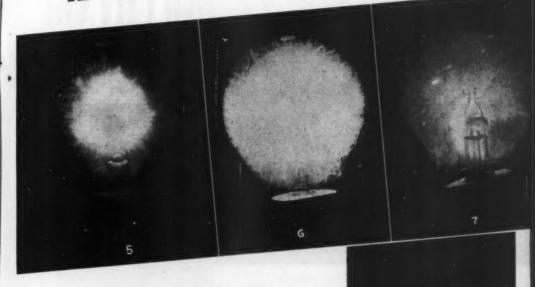
7.

The light is dying down and the terminals and their support show up again. The bulb is filled with the still glowing products of combustion

- 8

The last stage. Pieces of debris still very hot are falling to the bottom of the bulb.

# FLASH



#### By COLONEL W. MacCORMAC BURDEN

(Inventor of the Burvin Synchronizer)

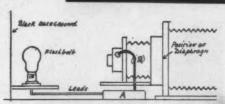
Photographs by the Author

FOR a fraction of a second, a modern flash bulb is a miniature summer sun in the intensity of its light. Although the period of combustion is very brief, events take place within the bulb in orderly succession. The bridge filament gets warm, the priming composition on the terminal posts flares up and the foil or wire then burns brilliantly in the oxygen with which the bulb is filled.

These photographs were made with ordinary photographic equipment—a camera and synchronizer.

A small folding camera with an f4.5 Zeiss Tessar lens of 4-inch focal length, and Compur shutter, was mounted on the lens panel of a 31/4"x41/4" plate camera. The smaller camera had a circular aperture of about 11/2 inches diameter in the back, so that the effect was to introduce a diaphragm between lens and plate. This did much to cut down reflections and

(Page 78, please)



(A) Synchronizer. (B) Cable release. The exploding lamps all were photographed at 1/250th of a second, but the lens opening was varied from f8 to f45. A diaphragm with a 1½-inch hole was inserted in the camera between the lens and film.



# NOTHING



One device for photo humor is the paraphrasing of well known paintings and aculpture. The track tipster, above, after a day at the races, certainly must feel like the famous Rod in statue (right) "The Thinker."



"Dante and Beatrice" as conceived
and executed in
oils by Henry Holiday (left) and,
alive, in modern
dress, by photography.

# TO LAUGH AT

By ALEXANDER KING
Photographs by Robert Disraeli

Turn to photo-humor for new things to laugh at and new fields waiting to be conquered by the camera

LET me say at once that I am hopelessly addicted to all forms of photo-humor. I deplore that the illustrative and gag photographers of the late nineties and early nineteen hundreds have disappeared. Their curiously stilted attempts at popular entertainment were, and to some smaller extent still are, the delight of stereoscope addicts and by their very obviousness have somehow preserved the less familiar notions of that quaint period. Of course, I don't mean to imply that we ought uncritically to continue in that

#### PHOTO-HUMOR IDEAS

Photograph waiting rooms. The deutist's, the dog hospital, beauty parlor, etc., with men waiting for women.

Photograph the various methods employed by men to disguise approaching baldness.

Photograph the silhonettes of plants and trees simulating human attributes or emotions.

Photograph the life and death of a fashionable hat. (Finally inherited by the iceman's horse to keep the sun out of its eyes.)

Photograph the facial expressions and bodily stance taken by people of different age and social background when they encounter a realistic nude at a photograph exhibit.

Photograph signs such as "Keep off" which have been violated or placed in localities which contradict their intention.

Only God can make a tree—but only man can ruin it, deface, destroy and paste advertisements all over it.

thoroughly worn-out groove, but some photographer, somewhere, might make a career by devoting himself to this entirely neglected field.

I have often wondered why photoillustration in general was not more widely



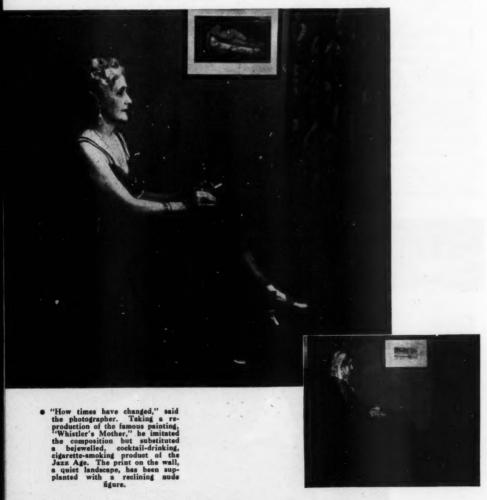
Note how eleverly the photograph imitates the composition of the painting (above) of Sir Luke Fildes "The Doctor." Humor has been subtly injected by replacing the child patient with a



used by popular magazines. Popular fiction, particularly of a somewhat humorous turn, ought to prove a great new proving ground for intelligent, ambitious cameramen. I don't think that this is an entirely easy procedure, since the examples I have seen so far were deplorably banal and inept. First of all, the novice photo-illustrator will have to rely on the help of his friends who must serve as characters in the special scenes to be illustrated. But everyone has some amiable acquaintance who will gladly assist during the experimental stage, at any event.

I would, in the beginning, take stories

from the current magazines and stage the illustrations with considerable regard for characterization, proper lighting, and authentic locale. To facilitate these experiments it will be best to select stories which require no elaborate costuming and which are not too far removed from your own native environment. If you think you have succeeded in capturing the quality of the story and that the intention of the author has been reasonably fulfilled, I suggest that you mail the results to the editor of the magazine from which you have chosen your material. I am certain of one thing: there is no art editor in the





phrased and odern setting of tanks. The faithfully followed

country who is not willing to risk a good deal of effort for the sake of finding a new and lively form of story illustration. If you've come anywhere meeting his special requirements he will undoubtedly be happy to cooperate with you, to send you an unpublished manuscript and give you intelligent, constructive advice for the asking.

But let me return to my own special hobby, Photo-humor and Photo-satire. In 1931 I edited a magazine called Americana which devoted many pages each month to such work, and the public response was amazingly encouraging. We started with the entirely reasonable bias that many absurd events in our daily lives gained an additional persuasive quality if they were photographed instead of sketched by an artist. For instance, we took three girl models from the New York Art Students League out into the country, put up a sign "Helopolis Nudist Colony", posed the young women in printable nakedness on the ground and photographed them as they were avidly reading a copy of Vogue magazine. At another time a pregnant woman was photographed at the zoo looking reproachfully into the stork cages. We printed gags which were funny, because they were executed specifically by photography. In a future article I will give examples of work which was attempted or accomplished by us, and which caused the little magazine to become a really rare collectors item.

The photographer who worked with me at that time was Robert Disraeli, who so thoroughly entered into the spirit of this work that it is quite impossible for me to overestimate his efforts or his achievements. In any event, I offer you some examples of his hitherto unpublished work, humorous paraphrases on some well known paintings and sculptures. You can clearly see that he did more than just copy the original, but rather attempted an aesthetic revaluation of the pictures in terms of modern satire. I suggest that you analyze his work carefully and see whether you could do as well with any one of the numberless paintings which readily lend themselves to the same purpose.

Another amusing pictorial diversion we cooked up was the so-called "Psychophotograph" which attempts, by means of symbols, to establish the personality of the subject. For instance, by means of a symbolic still-life, the personality of Greta Garbo was indicated by a tall vase wearing a necklace of ice-cubes, and so on . . .

I suggest this sort of portraiture as an amusing test of your ingenuity. In fact, I shall give you a small list of photo-ideas with which you may experiment, and which, if you wish, you may submit to me for advice or criticism.

One of the easiest things for you to start with, would be a series of signs which are either violated in spirit or are placed in a locality which contradicts their intention. For example, a sign placed in a grassy plot bearing the command "Keep Off" can have its lettering almost obliterated by a dozen snails which have crawled disrespectfully all over it. A large golden tooth, the sort which dentists hang before their emporia, can display a hole which shelters a couple of nesting birds. (In this instance you may have to build the tooth yourself out of papier maché and fix it with stuffed canaries.) A girl carefully retouching her lips or powdering her face in front of a shop window which bears the legend "Body Repairing and Paint Jobs" is an amusing photographic composition

If you have a gift for social satire you might photograph a negro boy shining somebody's shoes in the shadow, or at the foot of an Abraham Lincoln statue. If this is too grim for you, perhaps you can arrange to have a few colored boys shoot-

ing craps while old Abe looks down on them. I once bought a piece of white cloth and covered it with an all over pattern of swastikas. I took this material down to a Jewish market in New York and persuaded one of the peddlers, an ancient, bearded, saintly looking soul, to measure it on his arm as if he were about to sell it to me. This made an enormously impressive picture because it implied that venerable Jewish merchants will go on selling swastikas long after their momentary, brutal, pretentious symbolism will have disappeared in the drains of time.

It is pictures such as these that seem to be lacking in the mail-bag of the average photo editor, and as far as I know, no one is at present experimenting along these lines. Another good idea waiting to be intelligently exploited is Window Shopping. This permanent pastime of rich and poor alike should, if possible, be tackled from the inside of store windows. The facial expressions of the curious are the main concern, of course, but there ought to be some suggestion at least of the merchandise which taunts their imaginations. If you think of trying this suggestion remember that street mongrels looking longingly into the windows of pet-shops are still to be photographed.

In short, every zoo, every automobile junkyard, is a possible setting for your ingenuity. Don't worry about the superior gestures and posturings of so-called Pure photographers. They are undoubtedly doing fine work in tending their little acre of tombstones, and there are still enough cemeteries left where you can pose a propskeleton borrowed from some medical supply store.

I suggest that you begin by doing a series rather than a single humorous photograph, because this will furnish you with an immediate editorial gauge for establishing a batting average. Your series will only be as good as your least successful picture, hence you will discard your failures for the sake of a higher level of accomplishment. Let us suppose you take as the heading for your first venture a well established false notion such as, "The



Worm Turns". The best way to tackle this problem is to decide in your own mind what sort of worms are likely to do any turning which would please a great many people. I suppose the most common American inhibition is the compulsory meekness affected by the average driver when confronted by the professional rudeness of traffic policemen. Hence, the picture we want, the picture the most of us would cherish, would disclose the average Caspar Milquetoast bawling the beieezus out of some oversized traffic-cop. I daresay you can think of other similar notions without too much trouble, and you might very well call it "If Dreams Came True" or "Once In A Lifetime". Naturally, your success will

largely depend on the luck you have with your models, but any reasonably intelligent cameraman ought to be able to infect his subjects with some measure of his own enthusiasm to bring about a satisfactory pictorial result.

Another good idea for humorous exploitation would be the careful illustration of nightmares, or nightmarish

notions. I make no suggestion under this heading because you are the best judge of what would constitute a suitable subject for such a series. (A suitable, printable, subject, I mean.)

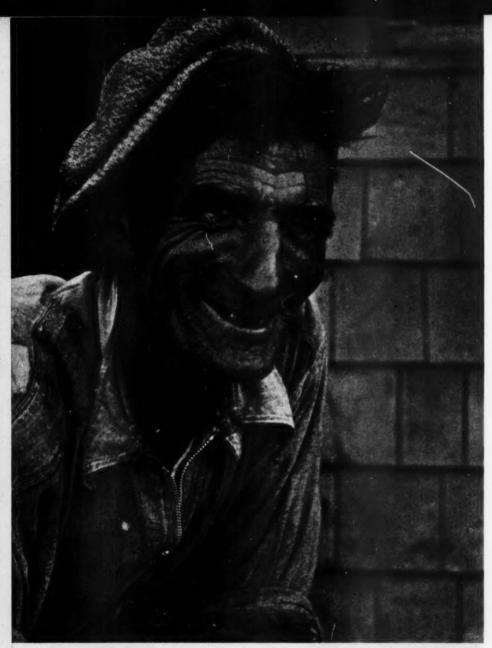
For additional suggestions that everyone can work out for himself, please see the list of *Photo-Humor Ideas* on page 27.



- The psycho-photograph is a form of "portraiture" in which the personality of a subject is portrayed by means of a symbolic still-life photograph. Alexander Wolcott (top) is pictured as a suspended bell, skull with icebag, sugar and molasses.
- Anthony Eden (center), the British politician, is seen as a clothes horse suspended in midair with a megaphone for a head.
- Benito Mussolini (bottom) is a gaping mouth with a ministure world between his teeth. Friends and enemies alike may be portrayed and carricatured by the psycho-photograph method.



• Greta Garbo—her personality interpreted as a tail vase wearing a necklace of ice cubes.



CAPE COD FISHERMAN

By J. WINTON LEMEN

- Made on a cloudless day in the shade of the wharf at Provincetown, Mass. Leica camera IIIa, Summar f2 lens. Eastman Super X film developed in Edwal 12.
   Exposure 1/100th second at f6.3. Print on Eastman PMC No. 11 in D 72.
- "Night Club" (next page). Leica G, Summar /2 lens. Agía Superpan Supreme, /3.2, 1/30th second. Two No. 2 photoficods in reflectors. Print on Defender Velour Black A in Edwal 106 Glycin formula.

# LEICA SALON

8 Pages of Leica Prints

NIGHT CLUB

By FRANK MARSHALL MOORE





APPLE CHEEKS

• Leica, 135 mm. Hektor lens, Ilford film, Panthermie 777. Print en Defender Velour Black.

This photo was one of a series showing the birth of a baby and the attention given a child during the first few hours of its life. Leica camera, 1/100th second at /4.5. Good daylight as found in operating room. Eastman Super X developed in Edwal 12.

THE BREATH OF LIFE

By J. WINTON LEMEN





A JULY JULEP

By FRANK MARSHALL MOORE

- Water always is photogenic, whether in the form of oceans and rivers or just drops in the air. Leica G, Summar f2 lens, Agfa Superpan Supreme film, f8, 1/500th second. Bright sunlight. Print on Agfa Portrait Enlarging.
- "The Corn Pit" (next page). Made by normal lighting on floor of the Chicago Board of Trade. The traffic moving along LaSalle Street can be seen through the windows. Leica G, Summar f2 lens, Agia Superpan Supreme, f2 at 1/8th second. Print on Agia Portrait Balarging.





STRAWBERRY

By GEORGE PAUL BISHOP

- Leica III, Elmar 35 mm. lens with copying attachment. Exposure f18 at ½ second. Agfa Superpan Supreme developed in Edwal 12. Print on Eastman Vitava Opal.
- "Wind from the North" (next page). By J. Winton Lemen. Model G Leica, Summar lens, 1/200th second at f6.3, Leitz No. 1 filter. Agfa Superpan film, in Edwal 12.

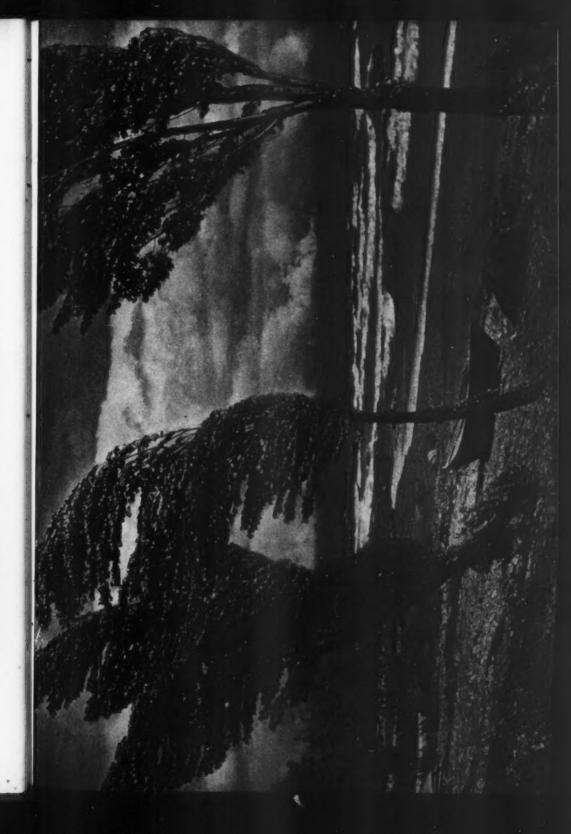




photo-etching (left) the smaller photoph (below) originated. next page.

# РНОТО-

New wavy-line technique makes every photographer an artist

By SIMEON RESSETAR . Illustrated by the Author

EVERYONE possesses latent drawing talent; an artist is only one who has developed this ability.

is sketched on with pen and ink. The print then is immersed in a solution which removes the photographic image, leaving the pen and ink image on white paper. No special resources are required, not even a darkroom. The materials used To make a photo-etching, a photograph are: India ink (25 cents) and bleaching solution (15 cents in tube form).

You may not write a beautiful hand—or even draw a straight line—but you can make photo-etchings. A snapshot may be disappointing because of incorrect exposure, excessive grain in the enlargement, or superfluous details such as telephone poles, wires, etc. In a photo-etching these deficiencies are eliminated.

Choice of print. The photograph should be on a smooth surface such as semi-matte. Glossy paper does not take ink. A glossy print can be used if it is first prepared by rubbing over with cotton dipped in pumice. Rub until the gloss has disappeared.

Size. Any size of print may be worked on, but a print 5 x 7 inches, or preferably 8 x 10, is easiest to handle.

Selection of subject. Select a print of simple composition and broad areas, one not dependent on rendition of detail or texture. The beauty of a photo-etching is its ability to eliminate superfluous details and reduce a composition to essentials.

Materials required. One bottle of waterproof India ink; one ordinary writing pen with a point that can make lines of varying width (a quill pen, such as favored by artists, may be used); one tray of adequate size for the print. Bleaching solution: Any bleacher may be used. Agfa Bleaching Powder for Brovira toner is obtainable in handy tubes (price 15¢). Directions on the tube specify 16 ounces of water, but for photo-etchings it is desirable to have the solution work slowly so the process may be watched. Dissolve in 24 ounces of water (1½ pints).

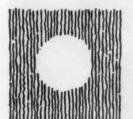
Drawing the photo-etching. Place the photograph on a flat surface such as cardboard or drawing board. Fasten with thumbtacks or adhesive tape, until the print lies perfectly flat. Make some test strokes on a blank sheet of paper. Pen and ink exercises as indicated in Fig. 2 will teach how to get various shades or tone values simply by varying the pressure of the pen and by the closeness of the lines.

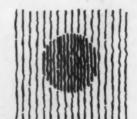
Hold the pen as in ordinary writing. Heavy thick lines, close together, give shadows and dark tones. Lighter lines placed farther apart give intermediate and lighter shades.

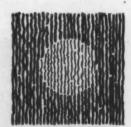
Let your hand follow its natural inclination and place the lines in wiggly parallel rows. It does not matter if they touch. In fact, it is desirable that they do touch here and there. In the long lines, occasionally do not follow through, but allow a break to occur. These lines are easy to draw—easier than ordinary writing.

Begin etching on chief object of interest and work around it. While sketching, it sometimes is advisable to have a duplicate photograph to follow as a guide to compare tone values.

Bleaching. After completing the drawing on the photograph it is immersed for a few seconds in a tray of water and then into the bleaching solution. Rock the tray so that the solution will work evenly as it bleaches out or "eats up" the photographic image. The ink is left unaffected. Sometimes it is desired to retain a grey background and in such case the bleach-







<sup>•</sup> Tones are obtained by varying the thickness of the lines and the distance between them, as illustrated above in the magnified sections of a drawing. Shown are the appearance (when magnified) of a white circle on a medium grey background, a dark circle on a grey background, and a grey circle on a dark background.
Fig. 2

ing is carried out only until part of the photographic image is dissolved.

The photo-etching, Fig. 3, if examined with a magnifying glass, will be seen to be made up entirely of pen and ink lines. In Fig. 1, however, a grey background of dots can be distinguished. This background takes the form of dots because of the half-tone printing process. In the original photo-etching, the grey background is in even tones of grey.

The length of time for the bleaching is about one minute, but depends on the density of the print. A fully developed print requires more bleaching time than one which was produced by overexposure

and underdevelopment.

Watch the print in the bleacher until the photographic image is dissolved, and then move the print gently into a tray of water.

The bleaching solution may be poured into a bottle and kept for future use.

Washing. Wash until there is no longer any trace of yellow in the print. You will note that now there doesn't seem to be any undertone. All the photographic images seem to have been bleached out. Do not use running water. Two or three changes of water will suffice.

While drying, however, the print's undertone will begin to be apparent. It reaches its maximum when the print is thoroughly dry. Should you find the

photo-etching too dark in undertone, simply wet with water and rebleach. Repeat this until the desired effect has been obtained.

When bleaching, washing and drying, handle the print by the edges or uninked portion. You will find that the bleacher has softened the ink, and while it will not

run, it will smudge.

Making corrections. If you may have made mistakes in drawing, don't stop to make any corrections. After drying, corrections can be made by going over some of the pen and ink lines or adding to them. Final corrections can be made with an etching knife or a razor blade. Then sweep the surface clean with an ink eraser.

A dense or overexposed or overdeveloped print may be bleached slightly (then washed and dried) before it is drawn

upon.

Photo-etching is a worthwhile exercise for artistic practice and practical exercise

in composition.

Artists frequently use photographs in making drawings. The method can be used by portrait photographers for producing sketches for customers who desire something different. It not only is faster and more accurate than free hand drawing, but is so simple in operation, that anyone can make photo etchings.

The background may be pure white as in this photo-etching or a light grey as in Fig. 1. The difference can be noted by examining these photo-etchings with a magnifying glass. Fig. 3





## PHOTO FALLACIES

Is a lens necessary for taking a picture? Is an amateur necessarily a beginner? Can snapshots be made into the light?

By MORRIS GERMAIN, A. R. P. S.

Photographs by the Author

Fallacy: That an amateur photographer is less skilled than a professional.

An amateur photographer makes pictures, not to earn a living as does a professional, but because of his interest in and love for photography. That is the artist's viewpoint—making pictures purely for fun. An amateur photographer may have more ability, experience and equipment than a professional.

Fallacy: That a picture cannot be taken toward the light.

In the early days of photography, students were instructed to keep the sun or other illumination always behind the

- Shoot into the light? Not this way (right). Fig. 2
- An example of correct backlighting. Fig. 3 (below).







• Photographs can be made without a leas! The above is from an exposure made with a pinhole. The size of the opening was about f300! Defender XF film. Exposure 10 seconds in bright sunlight.

camera. This fallacious teaching persists despite proof to the contrary. Back lighting camprovide novel and dramatic effects if the light is arranged so that direct rays do not strike the lens

Fig. 2 shows how a picture may be ruined by a light shooting directly into the lens. The circle of light behind the little pianist resulted from an incorrectly placed back light. The flare in the lower left hand corner came from internal lens reflections. In addition there is a fog all through the negative. A lens hood cannot screen out direct light under these conditions.

Fig. 3 shows how it can be done correctly. The subject has been seated so as to con(Page 110, please)

## SHOOT A SLICE OF LIFE

Use sequence-shooting methods for recording the human situations, affairs, and incidents around you

By OWEN M. SMITH

SLOW and clumsy old-fashioned cameras are being abandoned as rapidly as the horse and buggy once gave way to the automobile. But many modern camera owners still cling to horse-and-buggy camera technique.

There are two sides to this problem: the selection of subject matter and the operating of the camera. This article is concerned only with the first part.

One of the current misconceptions is the idea that it is necessary to voyage far from home for camera material. Travel is a stimulus, but nothing is greater in importance than the people, things and incidents we work and live with. Make a camera record of them.

Documentary photography, some call it, but that sounds rather formal and cold for the human and sincere pictures that we have in mind. Life has an individual meaning for each of us because it is seen through eyes trained by different experiences. The record pictures of one man may emphasize machinery and the machine age—how the automobile, for example, affects the lives of all of us. Another will record how people adjust themselves to economic and social problems. A man interested in farming will make a record of



Going to work
This might be
one of a seried
depicting on
day in your life
from the time
the slarm clock
rings in the
morning unti
you return, late
at night, to the
same bed. Ro
bot camera
1/25th, 1/2.8
By







 At play. Record not an isolated scene, but a complete sequence of tennis, golf, fishing, etc. This series showing Eleanor Whitney serving a tennis ball was made by Truman D. Vencil with a Robot camera, 1/100th of a second, f4.

the struggle against nature—a fight against rain, wind, hail, insects and frost. A social student might be alert for those casual yet significant incidences of the relationship between man and his fellow man.

Let us take a few ideas and see where they lead. People at work. How do men, women and even children earn their living or pin money? Seek natural poses in true backgrounds with just folk doing their jobs.

People at leisure. How do people spend those precious hours that are their own? What is their idea of self improvement? Their hobbies? Or just fun? What are their recreations and amusements?

People reading. What do people read? An amusing series, posed perhaps, could be made of different types reading different magazines from the flashy pulps to the slick paper periodicals. Why not several members of the same family reading different sections of one Sunday paper?

Record-making requires the technique of candid photography but it is not necessarily mostly stolen shots. People are usually friendly and willing to cooperate. Semi-candid perhaps would be a better term. The person knows he is to be photographed, but goes on about his occupation. When the photographer sees a likely pose or gesture, he asks the subject to do it again, and the snapshot is made. Some of the very finest type of this kind of work is done from a tripod.







By KARL MASLOWSKI Photographs by the Author

How to photograph the love life of the Don Juan of the marshes—a swamp tree frog. A pocket searchlight is used to dazzle the subjects and keep them temporarily motionless and blinded while their portraits are made

- The clear, bell-like whistle of the bell-tree frog (above) makes him easy to single out. Perched on a lily stem with sucker-cupped toes, this one was singing the frog's song of songs, his Act 1 of courtabing and marriage. One No. 11 G. B. photoflash bulb, 1/100th second at fl1, Mendelsohn Speedgun. Graffex camera about 2 feet from subject.
- The spotted salamander (right) is frequently found when photographing frogs. He does not sing, but is conspicuous because of brilliant oran ge-yellow spots along the back and tail. Salamanders are six to eight inches in length. Mendelsohn Speedgun, Graflex camera, 1/50th at f16, one G. E. No. 11 photoflash.



## FROGS A-WOOING GO

N intensely bright light suddenly flashed into the eyes of a human being renders him temporarily sightless. The light has a compelling force which robs a person of movement, for a human being is not apt to take a step in any direction until he can see where he is going. Fortunately for the nature photographer, many animals react in a similar fashion when a bright light is held on their eyes. Frogs and toads respond beautifully to bright lights. We have held some in the gleam of a powerful flashlight for as long as ten minutes. Other animals which can be made to hold still for photographic purposes by means of a strong light include deer, some





· Frogs mating. Graflex camera, one flash bulb, 1/200th of a second, fl1.

snakes, crickets, grasshoppers, certain birds such as sandpipers and owls, and smaller mammals like rabbits and skunks.

The light should always be held directly into the animal's eyes. Approach the subject as quietly as possible, for noise seems to break the spell which the strong light casts over animals. If the animal has a keen nose like a deer, be sure when approaching that the wind is blowing in your face and not toward your back.

The first time I tried this technique out on frogs was a cool spring evening. I was exploring a marsh with a pocket searchlight, a  $3\frac{1}{4}$ " x  $4\frac{1}{4}$ " Auto Graflex camera,  $5\frac{1}{4}$ -inch lens, Mendelsohn Speedgun, and a pocket full of peanut size flash bulbs.

Cold, bone-chilling water, lapped my mid-section as I stood motionless in the darkness surrounded by water, cattails, and sere brown marsh grasses. Yet my thoughts were not on physical discomfort. Instead, they were concentrated on a tiny beast scarcely an inch in length. I hoped this same little beast still rested where I had seen him a quarter of an hour ago—on a broken reed which was now about three feet before the camera I clutched with my nearly-frozen fingers.

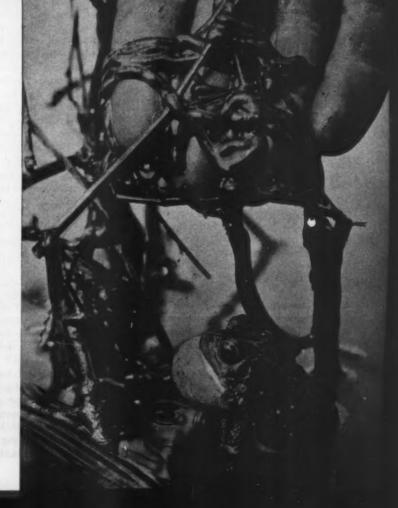
So on edge were my nerves from my ten-minute statue-like stand in the silence that I almost dropped my camera when a loud "peep, peep" sounded from the spot on which my attention was riveted. The spring peeper frog which I had singled out to photograph, from the hundreds that were singing on my arrival at the pond an hour earlier, was actually performing within range of my camera.

After the initial "peep, peep" I had but a moment to wait before a score of similar sounds came to my ears from all over the pond. Then the voice before me began a regular chant of "knee-deep, knee-deep" and the other chorus members added theirs until the whole world seemed alive with frogs. These sounds came from before me, from behind me, from my left, from my right, and it seemed as though from within my own camera!

I switched on a searchlight which I held along with the Graflex in my left hand. There, centered in the disc of light still on the same cattail to which I had stalked him, was the spring peeper. He was indeed a tiny creature, smaller than the end of my thumb, except for the half-inch balloon-like pouch that bulged and deflated with regularity from his throat. Looking down through the hood of my camera, I racked out the bellows until the elfin frog became needle sharp on the ground glass. Waiting until the throat sac reached its peak of expansion, I pressed the trigger and the lens shutter snapped



This is one of the most complete series of photographs ever made of the life-cycle of a frog. At the left is seen a female responding to the love song of the male freg.



First and last.
The long strings of American toad eggs represent the first stage in the life history of a toad; that of a courting male with inflated throat sac the last. The female toads are usually larger than the males and are present at the ponds in a ratio of about one female to seven many as eight thousand eggs at a time.

in accord with a glaring light from a flash bulb.

The frog continued his courtship performance of puffing up his throat and singing "knee-deep, knee-deep" as though nothing had happened. I changed bulbs and film and made a second shot. I did the same as I made a third and then a fourth exposure. Still the frog continued his love-call. I decided to change my position a fraction of an inch to better my pictures. As I slowly moved my foot a tiny wave caused by this slight disturbance broke over the frog. He promptly dove and disappeared from view. In ten seconds the whole pond was again silent. I waded back to shore and for the first time realized how really cold my body had become.

I gave up frog photography for the night and, I thought, forever. When I developed the exposed negatives the following evening I knew I had just begun. The results were most satisfactory photographically, and scientifically pictured a little-known phase in the life history of a spring peeper. Since that experience, frog, toad, and even salamander hunting with my camera has become my favorite spring night hobby.

I soon learned that the same technique used in getting my spring peeper pictures could be used with few exceptions on other frogs and toads. I would trace them down by aid of their song and a flashlight and then snap them with a reflex camera equipped with a flash synchronizer. Salamanders, of course, offered no clues as to their presence by singing. When hordes of some species such as the spotted salamander congregated to breed in some tiny marsh it was just a matter of waiting for one of them to pose in some suitable position and then snap the picture.

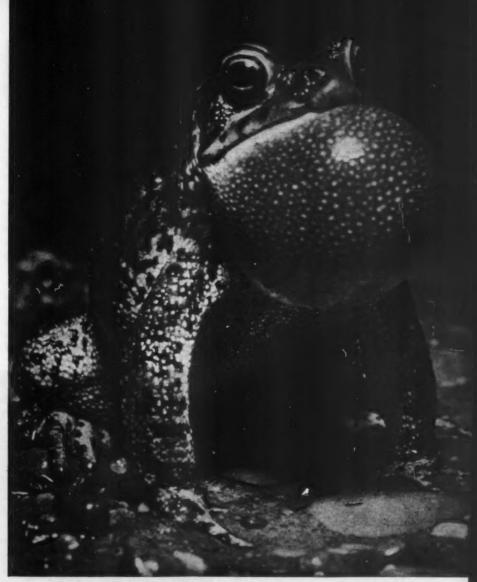
I also learned that all amphibians were not as shy as the spring peeper I had photographed. Indeed, a few nights after my initial attempt I learned that even not all spring peepers are shy. I found that much of the frog's wariness depended on his enthusiasm for courtship. This enthusiasm in turn was governed by the temperature.

If it were a warm evening they minded my presence little. If, on the other hand, the thermometer hovered below 60 degrees F. their singing would cease at the slightest provocation.

A memorable night following the frogs was spent with a companion photographer amid the vast fields of yellow lilies, wild rice, and cypress trees that blanketed one arm of the mysterious Reelfoot Lake in the state of Tennessee. This great body of water had been formed by a series of earthquakes back in 1811-12. Since its formation it has become a sanctuary for one of the greatest concentrations of wild-life in eastern North America. Great nesting colonies of water birds, reptiles, fish, mammals, and amphibians abound. Its flora is almost equally remarkable.

We were still more than a mile from the water when we first heard the roar of frog voices that thundered from the marsh. The night was hot and sultry and from above shown a yellow crescent moon which bathed the lacy green cypress foliage with a silvery light. Few sounds except those of the frogs came to us as we trudged down the wagon road through the newly sprouted cotton fields.

Finally, we arrived at the edge of the swamp and still the noise sounded far away. Fifteen minutes of wading brought us at last to a point from which we could distinguish the various frog voices which made up the chorus. Bullfrogs, cricket frogs, green frogs, leopard frogs, tree frogs, and bell frogs roared, squeaked, whistled, grumbled, chugged, squawked, shrieked, and bellowed in an ear-splitting symphony. I had to shout almost to make myself heard as I gave my companion some directions. My talking and wading increased rather than silenced the noise. The frogs seemed intent upon drowning out my voice and stepped up their volume several notches. Here indeed was a frog photographer's paradise. Subjects could be approached and photographed with ease—except for one thing. Clouds of mosquitoes hummed over us and came to rest on the exposed parts of our bodies. Wherever they rested a tiny



• Competing for prominence with the inflated throat eac of a courting American toad (Bufo Americanus) are the creature's remarkably beautiful eyes. They are wonderful gold flecked orbs. Shakespeare was right in saying that there are jewels in the head of a toad—the eyes are proof of that statement. He was half wrong in believing the toad to be "ugly and venomous." A close examination will reveal a toad to be a gravely comical personality rather than ugly. One flash bulb, 711, 1/200th.

stinging welt would rise. That welt immediately needed attention in the form of vigorous scratching.

Despite the mosquito handicap we were able to make some remarkable pictures. We were especially pleased to get a fine series of negatives of the bell-tree frog—a beautiful creature. They are usually green though sometimes spotted with gold flecks on the back. A gold-colored stripe passes from the jaw to the frog's thigh. Unlike most other Hylas their skin is smooth and satiny. They were quite easy to trace

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## PRINTING WITH

The film matrices are inked with red, yellow, blue and black ink, and these four colors placed one upon the other form the final, beautiful full-color print

By HARRY CHAMPLIN

INKING the color print, after the separation negatives and film matrices have been made, is the easiest and most fascinating step of all. Printer's ink is used—red, yellow, blue and black—and these four colors yield the final, brilliant full-color photographic print.

Take one of the film matrices as described here last month, and soak it in plain water at a temperature of approximately 70° F. for about five minutes. Start with the red printer—the matrix made from the green filter negative—because the red ink, or print, or dye, will generally bleed through other colors and come to the surface and not be lost. This peculiar quality of red has been known for centuries. Some of the early painters laid red on their canvases first and gradually this color has come through and become predominant.

While the film is soaking, take a small quantity of red ink and spread it evenly over a piece of plate glass. It is a good idea to have four pieces of plate glass at hand approximately 12 x 16 inches in size—one piece of glass for each color. Spread the ink out over one place upon the glass and then take the roller and roll it back and forth until it is completely covered with ink. Start with a clean place on the glass and roll back and forth for a distance equal to the circumference of the

roller, then across until you are sure that the film of ink on the roller is even.

When the film matrix has soaked for approximately five minutes, remove it from the water, lay it face up on a moistened chamois and blot off all surface moisture with another piece of chamois. It may be well to say here that the chamois used for this purpose should be kept in a jar of water so that it does not dry out and become coarse textured.

Take the roller and mark upon another clean place on the plate glass or upon a piece of white opal glass a frame on which to set the film matrix. There should be a tendency for the film matrix to stick to the roller and if you make an outline of



Flowers are but one of the subjects which must be photographed in color to take full advantage of their beauty. Daisies furnish a riot of yellow and white in natural green surroundings. Note the bee near the center of the picture.

## PLAN - COL

ink with the roller and press the film matrix down upon it, it will help keep it flat. Recharge the roller with ink by rolling it over the spot used to spread the ink evenly, and then start at one edge of the matrix, press down firmly and roll slowly across to the other side. You will see that the film matrix accepts ink over the whole surface and that there is an outline of the image which had been developed and then bleached out.

When you have rolled across the film in one direction and have deposited ink upon the matrix, recharge the roller and roll across the film again. Suppose you are inking a 4 x 5 film matrix. Roll across the short way of the film, first slowly and



#### **FOLLOW THESE STEPS**

- Soak red-printer film matrix in water (about
- 70° F.1. After 5 minutes remove film matrix from water and place on a flat piece of glass
- or inking. Run inking roller over the red ink and then
- in laking retier over the matrix.
  oce matrix on a piece of power to transfer the red
  atrix to the paper.
  eturn matrix to the water.

then after recharging the roller, roll across the long way of the film. This second rolling should pick up ink from the highlights and bring out all the image. The second rolling should be just a little faster than the first and should be much lighter. In fact, you can start at one side and pull the roller across the matrix so that there is no weight or pressure upon this operation.

The roller is of a special composition which will release ink under pressure and yet has sufficient adhesion to pick up ink easily.

The quantity of ink deposited in any color process is much less than you would imagine necessary for good results. However, you must bear in mind that there will be four separate inkings, one on top of the other, and if each individual inking is too heavy, the final print will be much too dark in tone. It is a good policy, therefore, to put only half as much ink as you think necessary. One or two try-outs, however, will soon show you how much to put on, how much to take off. If you have too much ink on the film matrix, pass the roller over a clean portion of the glass and then draw it over the film

matrix again and take off more ink. You can continue this removal process until all of the ink has been lifted from the film. A little experience will show you that the roller can be passed over the film once each way and these two simple operations will complete the inking of the film matrix.

When inking has been completed, lay the film face down on a piece of paper and then transfer the ink from the film to the paper by pressure. The ease with which the ink transfers will depend entirely upon the absorptive power of the paper. It is a good idea to start with a fairly smooth paper and one with sufficient absorptive power to accept four deposits of ink. Such a paper as Strathmore Illustrator's Special, high surface, is recommended for the beginner. This is a thick paper which will not curl or wrinkle when brought into contact with a moisture-laden film matrix. There are other good papers, water color papers, lithograph papers-with which you may experiment for any desired effects.

Transfer is accomplished under pressure by rolling the film matrix down on the transfer paper with an ordinary wooden rolling pin, by rubbing with the back of a tablespoon or by sandwiching the film and transfer paper between two pieces of blotter and rolling through an ordinary rubber-rolled wringer. Do not roll back and forth through a wringer because there is some danger of slippage between the film matrix and the transfer

paper.

When transfer has been completed, remove the film from the transfer paper and return it to the water. It does not have to stay in the water more than thirty seconds, but this water bath is essential in order to bring back the swelling of the gelatin structure. It is a good idea to ink up a number of prints of the first color before starting with the second. Inking is decidedly easier the second time; in fact, inking can almost be completed with one movement of the roller across the film. When you have made a sufficient number of red transfers, prepare the yellow printer

for inking. Soak it in water for approximately five minutes at 70° F, and while it is soaking, wash the roller with either carbon tetrachloride or a good grade of cleaning solvent. Soak a rag in the solvent and wipe the roller carefully with it. Clean off all of the red ink or if you have four pieces of glass, set the red palette aside and prepare one with yellow in the same manner described for red printing. The yellow ink is a little heavier bodied and not so transparent as the red. Then, too, you will notice that it goes on easier and is a shade more difficult to remove. However, the exposure times given for the separation negatives in last month's article have taken this fact into consideration and the film matrix will therefore be of the correct density for printing with this ink.

When the film has been inked completely, lay it over the red printer in the following manner. Hold the film by two diagonally opposite corners and lower it gently over the red image until you find a line or curve or a small object. Then allow the film to contact the transfer paper at this point and, still holding by two corners, continue lowering the film until you are sure of perfect registration. Registration is actually simpler than it sounds. Once the film is registered, press down upon it with the palm of your hand so that adhesion takes place. It is a good idea at this point, and regardless of the transfer method used, to complete adhesion with a roller of some sort. An ordinary rolling pin is excellent for this purpose but if you do not have a roller, press down firmly with your hand so that no air bells remain under the film. Pressure upon the film will show you how the two colors immediately blend where one is deposited on top of the other and how brilliantly they stand out when either color is alone.

Never attempt to transfer a first inking upon a second or third pull because the gelatin is stretched slightly under pressure from the wringer and is slightly different in size when first inked.

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AFRICAN NYALA

By RICHARD WURTS

## HOW TO MAKE 'EM LOOK ALIVE

Big Game Hunting with camera and tripod in your own compound

By LIONEL WURTS

Photographs by Norman and Richard Wurts

SAFARI ahoy!

Join a camera expedition for Darkest Africa, Tanganyka Territory, the Amazon jungle wherever fancy and wanderlust may lead. Photograph game in their native habitat, but without the danger, difficulties and expense of travel through jungle and desert.

If you can't film them alive, film them to look alive! It can be done as is shown by the reproduction on these pages of a group of camera shots every one of which was made in Akeley African Memorial Hall, New York City.

We didn't have to worry about organizing a safari, disciplining native porters, or fighting deadly mosquitos. But there were enough camera problems to make the assignment one of the most interesting we ever attempted.

The difficulties were met so successfully that experienced game hunters were taken in, for a while, by the real-life appearance of the museum pictures, and friends continually commented, "Gee, it must have been plenty dangerous."

Carl Akeley dreamed about African Hall during his trips to the dark continent. The concrete result of the famous explorer-photographer's dreams is an especially designed building with displays hermetically sealed behind glass and sepa-



For realistic effects, it was necessary on this assignment to reverse the usual procedure and strive for minimum depth of focus to give the illusion of distance and perspective. It was effected by use of a fairly large lens opening and focusing on the first animal to let the middle distance and background go out of focus. Superpan film, 1/100th at f4.5.

rated from each other by marble pil-

The trouble with the usual museum stuff is excessive definition. Because the subjects are not in motion, photographers are tempted to stop down for a time exposure at f16 or f32. The result is entire loss of naturalness. With everything sharp, from glass front to hand drawn background, the scene looks like a flat painting and all illusion of natural life and perspective is lost.

In order to "Bring 'em to life," we decided to use large lens openings, focus on the eyes of the animals, and let the background go out of focus. Working with the Museum's publicity department we obtained the services of an electrician to turn lights on or off and to give us a hand in placing our own lights atop the sloping glass ceilings over the exhibits. This was difficult as the cases had very narrow catwalks of glass running inside and above the walls. The heat was intense and it was

difficult for the photographer to make directions heard through the hermeticallysealed glass cases. The Museum officials had the advantage of microphones when they made the installations.

We wanted to simulate actual sunshine and to make the game live by having the foreground melt into the background to give the effect of distance. It was not easy as these backgrounds actually were only about ten feet from the glass fronts.

Spot lights were placed overhead and side lights outside the glass fronts. They had to be arranged to eliminate reflections from the glass. Focusing on the eyes, we used lens stops ranging from f4.5 to f11. Our aim was to obtain sharp foregrounds, letting the middle distance merge into the

<sup>• &</sup>quot;GIANT BLAND." Note how the use of a large lens opening has left the foreground grass out of focus so its fuzziness could give the illusion of grass moving in the wind. Zeiss Ideal B, 9x12 cm., [4.5, 1/25th second. Agfa Superpan film pack.







 The Bongo (left), is the deep forest representative of the tragelaphine antelope. It is the handsomest member of the group, with its spirally-twisted horns, glorious brown to black hide and well proportioned body.

slightly out-of-focus background. This made the animals look as if they had been photographed under natural conditions.

The general views were made by Norman Wurts, using an 8" x 10" Deardorf view camera, and Agfa Superpan film. Most of the detail views were taken with a 9 x 12cm. Zeiss Ideal B with f4.5 Tessar lens on Agfa Superpan film packs by Richard Wurts. With each group it was necessary to use different lighting and in some cases it was quite difficult to eliminate the shadows cast by tall animals on the backgrounds. Such shadows immediately brand a print as posed and destroys all illusion of natural life. The Museum published a handsome book size magazine filled with reproductions of our photographs classified under the various animal



• Buffalo are notoriously difficult to approach in real life, but the museum variety is inured to cameras. An exposure of about 1/25th second will capture most of the brightly-lighted exhibits if one of the high speed films is used. Keep the camera lens wide open and focus on the eyes.

groups, and also distributed various sets to the leading newspapers.

Many of our friends demanded to know how we secured such fine photographs of live animals and returned home safe and sound. When they found out, they immediately proceeded to make a big game safari on their own account. Some of them claim to have equalled and bettered our score despite their working without auxiliary lights.

In many museums, as in Akeley Hall, photography is aided by the fact that the clear plate glass windows slope inwards at an angle of about 15 degrees. This minimizes the possibility of troublesome reflections.

Flash lamps might be worth experimenting with if permission can be obtained, but it would be difficult to anticipate and control the effects of the cross reflections from the glass and marble.

Just what special equipment would you

need for a "Big Game Hunt"? First of all, a good tripod with rubber tips and a brace to prevent the legs from slipping. Also a tilting top, a lens shade, a light yellow or yellow-green filter, an exposure meter, and plenty of fast film such as Agfa Superpan Supreme, Panchro Press or Eastman Plus-X.

Color film opens up a separate field and ought to provide excellent results since most animal exhibits are arranged and lighted for color effects. Lighting that appears flat on a black and white print may be found perfect for color film.

Stalking big game in a museum requires as much patience as in the jungle. There will be plenty of problems arising from reflections and from camera fans wandering in front of the camera or tripods slipping on floors. But you probably will come home with better pictures than many an explorer brings back from the wilds.

## DRAMA ATOP A TABLE

How would you photograph a table-top scene like that on the following page? What size objects would you use? What focal length of lens? What lighting?

ABLE-TOP, or still life, photography is one of the rare instances in which the cameraman can be entirely creative. In other forms of photography we are purely selective. Photographing a landscape, we isolate a pleasing section from the general scene and make a picture; in portraiture we are dealing with a head and features we can do very little about. We may choose the lighting and camera angle ourselves, but we cannot change or re-create the landscape; neither can we change the facial characteristics of our model except through tricky manipulations. Even the rank beginner can snap a good landscape or a good portrait if all the conditions are accidentally right.

This sketch of the photograph illustrates the use of the "steel yard" principle of composition.

Fig. 1



On the other hand, a good table-top study demands an understanding of design, balance, and lighting. For the worker with a creative instinct, there is no finer photographic exercise. It is a "must" for every student learning photography.



Three or four objects or paper cut-outs of various shapes can be pictured in beautiful and arresting patterns. The student, thus, soon learns what types of shapes go best together. He realizes that when he moves one object he actually changes two areas. Most advertising and commercial photography is essentially a glorified tabletop. The studio may be a million-dollar job, full of expensive props and sets, and live models may take the place of little toy shapes on the dining room table, but the finished product on a sheet of photographic printing paper is a table top on a bigger scale.

Take some simple objects of approximately the same form, say, all curves, or angles, or squares, and try to arrange them in a pleasing and compelling pattern. Then attempt the more difficult task of combining a circle with an angle. The combination of different shapes will bring up the problem of achieving the right balance. To two shapes, add a third.

HIS SHADY PAST By VICTOR H. KIFFE

 Camera work is mostly selective because scenes are ready-made by nature and the photographer can only pick out the part of it he likes best. In a table top, however, because every detail is left to the photographer, his work becomes creative.



Surprisingly enough, this will not be difficult to do successfully, for three objects is one of the easiest numbers to work with. That is why so many still lifes in a photographic salon contain three items. Then add a fourth object or shape and your ingenuity will be taxed to give your picture coherence and good pattern. You will find that an even number is harder to handle than an odd number of subjects.

The choice of objects for table-top use is countless. No photographer can ever say: "I didn't have anything to work with." At home, for instance, place a piece of silk or satin on the floor and arrange it in all manner of beautiful forms and folds. Juggle the lights around and take pictures of it for form and line, and then light it differently to bring out the rich texture. One piece of cloth can keep you busy for many evenings. Take a handful of nails and arrange them in a striking pattern. The glassware and crockery theme is very popular in table top, and here you should try to use the reflections to best advantage. Take shots of a hand and fingers in all manner of poses, even your own hand. Shoot pictures for action, for story-telling possibilities, and also for texture.

As a rule, a fairly big object handles easier, photographically, especially if it has beautiful form and lines. Tiny things like toy animals make very attractive pictures, but if they are cheaply manufactured, they are apt to show up many deficiencies when enlarged much beyond their natural size, deficiencies that are all but imperceptible to the eye in their small state. It is, therefore, usually preferable to photograph big things and reduce them in size.

Any one object can produce scores of different pictures by changing the direction of light, the camera angle, by turning the object round so that all its variations of shape become apparent, and finally, by changing the background.

For table-top photography, the longer the focal length of the lens the better, but users of box cameras should not be discouraged, for many a beautiful still life has been produced by the cheapest camera. The reason for the long focal length lens is that it is desirable to place the camera at least five feet from the set. Naturally, if the objects are very small you will have to get closer, but distortion is always present if you get too close. You don't need a very fast lens since your scene is inanimate, and a good negative is therefore purely a question of exposure. Since this is likely to be a matter of several seconds, you will need a good tripod.

With artificial light you can perform all the tricks and secure all the effects that were ever devised. Here again is a good exercise in creative skill. Having, with great patience, built up a still-life study, now you can "paint" it softly, dramatically, harshly (as you wish) with light. A spotlight is a very useful accessory because it enables you to concentrate a beam just where you want it for a special effect. And bear in mind that the lines of the shadows have a distinct bearing on the actual composition of the picture. The edges of your shadows should be in harmony with the subject matter and enhance its effectiveness. Natural daylight (not direct sunlight) is beautiful and can be very desirable for certain types of table top. Glass and white chinaware, for instance, where the softness of daylight can be utilized to good advantage.

You don't need an expensive set of floodlights. Press into service your table and desk lamps. With 75-watt bulbs, they will serve excellently, and an improvised spotlight may be made by rolling a piece of paper into a funnel, and fitting the wider end over the bulb. The light will pour out of this funnel in a controllable beam just exactly as from a fifty-dollar spotlight. Beginners are advised to use 75-watt bulbs in home lamps until they are able to judge better the balance of light needed for still-life sets.

The table-top study that has pictorial claims should convey a definite mood. A

(Page 68, please)

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AGE" (below) illustrates a significant type of underexposure. The bright areas are perfectly exposed but all detail has been lost in the eyes and other shadow parts of the face. The exposure used (1/50th at f11) would have produced a correctly exposed negative if the subject's skin were light toned. But the dark bronze skin in "Age" reflected very little light. In determining exposure, estimate not how much light is reaching the subject, rather how much light is reflected toward the camera. An exposure of 1/25 at f8 would have given a dense negative, one which would look overexposed yet it would on careful analysis be found to have just enough exposure in the shadows.

Carefully printed on soft paper, the full details of this interesting old face would have been seen.

This photograph was taken near the middle of the day and therefore had the disadvantage of light from almost directly overhead. Of course the obvious way to overcome this trouble is to confine photographic activity to the early morning or late afternoon hours. However, when it is necessary to take pictures when they

• "Age." Univex Mercury Camera. 1/50, f11, medium yellow

some place where there are white buildings to

come, reflectors will serve to soften the harsh overhead light. A white piece of cardboard about three feet square will reflect ample light when held a few feet from the subject, directed toward the shadow side of the face. When such a reflector is not availabe try to lead your subject to



• "HARBOR ACTIVITY." Leica camera, Agfa Finopan film, yellow filter, §5.6, 1/60th.

reflect the light, or a white cement road.

HARBOR ACTIVITY" certainly is a busy little scene, too busy for good composition. There is so much going on at one time that the eye does not have a chance to grasp the picture fully. The beginner will find that if he concentrates on getting as little as possible in his viewfinder, rather than too much, his pictures will immediately become more striking and effective. For example, if the picture taker in this instance had concentrated on the two men in the foreground, a more successful result would have been achieved. The title, of course, hints of including a wider scene of action, and while this may be the correct thing to do for record purposes where we wish to see as much as possible, in serious picture-taking we work in the opposite way. Therefore, we feel that even now the picture can be very much improved. (if not a really good result obtained), by eliminating practically everything but the two men in the foreground, as shown by the crop line.

If this portion of the negative were enlarged to 11x14" in a vertical rather than a horizontal frame, we would actually have a picture of good composition built on diagonals and with good chances of salon success. All amateurs frequently have good negatives in their files which never will be admired by their friends simply because the possibilities within the negatives are

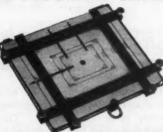
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# ALE SOBUMENT OF THE Old, and—

By MARTIN W. TANNER

Designer of the Lenz "Sgion-Type" Album



W ITH one exception, camera equipment became modern with the introduction of the new high-speed lens. Long-bellowed cameras and red-rubber bulbs disappeared along with the admonition, "Hold still, please." But until quite recently the album alone showed no inclination to give up its 1890 dress—floppy covers naively labeled "photographs" and pages held together with shoe laces.

Now the modern camera owner is beginning to consider his album an effective means of expressing the artistic side of his hobby. He selects fewer prints, displays them in an album that keeps them smooth and flat, and arranges them dramatically—with an eye for balance and contrast.

Perhaps this trend stems from the influence of modern page arrangements in Life, Vogue, and other good photographically-illustrated magazines. Perhaps we owe it to the eye appealing layouts of present-day advertisements.

The fact is, the old-fashioned, catalogstyle album is giving way to a more attractively-arranged and completely functional type which:

- Has an informal, contrasty arrangement of prints.
- (2) May have ivory or grey—instead of the conventional black pages.
- (3) Lies flat when opened.
- (4) Has a cover expressive of its contents—a photograph.

Pages crammed with rows of uniformly-sized prints in solemn "tombetone" order (upper) are giving way to modern eye-appeal pages (lower).

The owner puts his own picture on the cover.



One way of arranging three 3½x4½'s and an 8x10 cut-out.



• Six 21/4x31/4's and a 5x7 bleed picture in a modern arrange-



Many up-to-date fans are mounting 5x7's alongside 2½x3½'s and giving them infinitely more eye appeal. They are cutting blow-ups into odd, cloud-like shapes and giving the eye a welcome relief from squares and oblongs. They are mounting their prints at interesting angles.

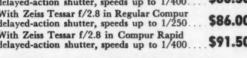
In their flat-opening albums they treat each spread as if it were one wide page. They often bleed prints (mount them flush with the page's edge.) By thumbing their noses at the fact that white pages will soil, they get attractive effects by mounting unbordered prints in white-paged albums.

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With	Zeiss Tessar f/2.	B	 	 	\$62.50

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An extremely compact and light miniature. The camera opens automatically, ready for use. Bellows and cover are of genuine leather. Makes either sixteen pictures 1½x1½ or eight 1½x2½ on 127 film.

With 3"	Ham	nastigmat			\$17	.50
With 3"		Anastigma			 \$29	
shutter			 	 	 747	.30

#### 21/4 x 31/4" CERTIX CAMERA

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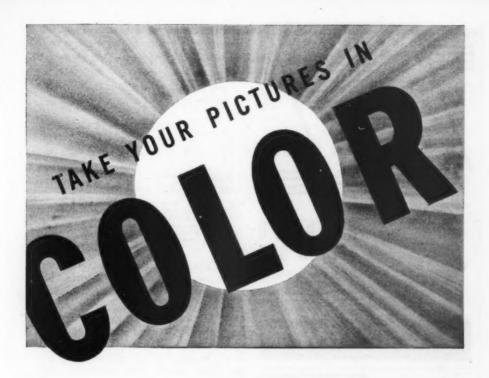
#### Drama on a Tabletop

(Continued from page 62)

lighter, airy treatment. Keep lights and shadows in true relation to your subject. Plenty of light and a minimum of shadow produce a high key effect. Deep shadows make low key effects. The ratio between shadows and highlights will determine the basic mood of a picture, and an incorrect mood will spoil the most carefully arranged and attractive set-up.

In this study, "His Shady Past", through the simple expedient of using the Shadow and Substance idea, Mr. Kiffe manages to tell an effective story of the past and present. A mere glance at this picture in conjunction with the title sets our imagining going and calls to mind all the bold, bold stories about seafaring men. There is a deft touch of genius in the selection of the figurines which were used for this set-up. Note the pudgy but still compact form of the old sea dog, and then look at the lean figure of the strapping youth as reflected by the shadow. It is easy to see the transformation which has taken place through the inevitable years, from the adventurous lad who sailed the seven seas and met the ladies from Rio to Singapore, to the grizzled sea dog who is done with pacing quarterdecks. But, do we notice any slackening of the spirit as age has come? No, a close scrutiny of the face will show that the old boy is still keen of eve, has a wide grin, and is ready to tackle anything that might come his way. The ghost of the clipper ship in full sail on a mystic ocean puts the final touch to the saga of the sea.

The composition is based upon the "steelyard" principle (Fig. 3). This type of arrangement is one of the best and yet easiest forms of composition. It is readily understood if we assume that all objects in a photograph have a definite weight, the same as they have in an everyday world. In actual use, when weighing objects in a steelyard scale, heavy objects can be counterbalanced by lighter ones as long as the latter are removed far enough away from the fulcrum. In a similar sense,

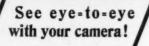




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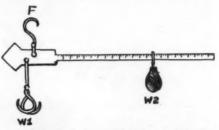
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children playing on a see-saw can establish sufficient equilibrium so that one child can outbalance two of greater weight.



A Steelyard. It is suspended from the hook "F".
Heavy weight hung from W1 is counterbalanced by
the weight W 2, which can be moved along the arm.
The steelyard principle of composition involves simply the placing of varying size weights at varying
distances from the center of interest. Fig. 3.

In "His Shady Past", the two figures are so placed that they form a perfect balance in relation to the setting as a whole. In the sketch, Fig. 1, it is quite evident that "1", the little statue, is the central point of interest. The large shadow, "2", while taking up most of the picture, is simply being projected as a second self of the small figure. The substance (that which is actually existing, so to speak) takes dominance over the shadow (the unreal and make-believe). The lack of detail, and the absence of features in the shadow itself, make our eyes seek out the smaller statue. In addition, it also is near the area which holds the strongest contrast between highlights and shadows. The projected figure is felt to be only that of a simple sailor, who, as years went by, attained the rank of an officer without losing the elemental ingredients which made him an attractive figure as a youth.

Now, as to the technical means of executing this table-top, Mr. Kiffe made two exposures on one negative. First he photographed the little statue of the old salt on which he projected a side light so that it would stand out strong, having to compete with the much larger image on the background. After the first exposure was made, this light was turned off and the second statuette (the actual figure of which is not visible in the photograph) was projected on the wall with the light

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placed very low. The image of the clipper vessel was obtained in the same manner.

In executing the double exposure of this picture, the chief problem is accurate placing of the two images in relation to each other. If a ground glass viewfinder is used, the first image can be outlined on the ground glass or on a piece of tissue paper so that its exact relation to the second image can be seen.

#### Frogs A-Wooing Go

(Continued from page 51)

since their clear whistle, almost bell-like in tone, could always be singled out of the other discordant songs. We found most of them perched in the lilies. Some clung to the stems with their tiny sucker-cupped toes and others were discovered sitting atop the great round pad-like leaves. In the light of our electric torches they appeared almost translucent. Their bodies were swollen to twice normal size with trapped air. This they regularly released into the throat sac which was used as a sounding board to throw the bell-like song. So ardent was their courtship singing that frequently the little amphibians would permit us to break away obstructing vegetation without interrupting their performance.

Perhaps the simplest of singing amphibians to photograph are the toads. They emerge late in spring, which assures the photographer body comfort at least. Many of them, such as the American toad, come to the very edge of the ponds to sing. This saves the photographer from wading into cold water. Toads are considered ugly by many people but a close examination of one of these warty bits of flesh will reveal a gravely comical personality.

The series of photographs of which I am most proud are those depicting intimate scenes in the courtship of a swamp tree frog. These are tiny froglets whose voice sounds like a tight cork being twisted loose from a bottle of good whiskey. They are the first frogs to start their lovemaking each year in the marshes near my home. On rare occasions they can even

be heard on warm January evenings. However, by the time Washington's Birthday rolls around, swamp tree frogs are already well on the way toward increasing their numbers. Every tiny pond and road-side ditch echoes to their screechy serenade.

Despite their abundance it was not until last spring that I made some satisfactory pictures. Heretofore, either the frogs were too shy, the water too cold for human flesh, or the subjects had assumed bad poses. Chief of these faults had been their wariness. These Lilliputians are noisy enough during the breeding season so long as one stays 25 feet away from their courting grounds. Go closer than that, however, and you might wait a lifetime for a picture. By the 10th of April the love season for the swamp tree frog is generally at an end.

Strangely enough, I got my pictures on the 15th of April. I had gone out that evening to an old gravel pit to make pictures of toads. While there I heard a few swamp tree frogs in spasmodic song. After a successful hour's work with the toads I decided to take a crack at the frogs. I could hear individuals singing none too enthusiastically in the small ponds. For an hour or more I shifted from one pond to another trying to get near enough to a singing swamp tree frog for a flash picture. The little beast's timidity finally tired me and I started back to the car to pack away my equipment and go home to a comfortable bed.

Several hundred yards from the car I passed by a small pond that lay deep in a pit excavated for sand and gravel. From that pond came the steady serenade of a single swamp tree frog. Pausing momentarily on the brink of the high bank I mentally debated with myself whether to go home or to make one last effort to get a swamp tree frog picture that night. The picture idea won out.

Slipping down the bank I made enough noise to compete with a minor landslide. Arriving abruptly at the bottom and directly at the edge of the pond, I was encouraged to hear the frog still clamor-



A Grafies - made Picture by H. Armstrong Roberts

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ing lustily. Twenty feet of none too careful wading brought me within three feet of the still singing swamp tree frog. It was only a matter of a moment before I made several excellent exposures. The frog was in an ideal situation and paid not the slightest heed to me as I moved about making at least eight more shots. On one occasion I carelessly dropped a flashlight bulb on the ardent lover's head. This silenced my subject for only a moment. Scarcely had I recovered the bulb before the frog was once more singing gaily and this time from an even better position!

Now that I had the opportunity, I wanted to make enough swamp tree frog pictures to last a lifetime.

With only one exposure left, I stood still in the dark for a few moments trying to figure out a new angle from which to photograph. When finally I switched on my flashlight I was overjoyed to see another frog of the same kind resting lightly in the water just back of the one singing. Focusing quickly, I exploded my last bulb and exposed my last plate. The result was the only negative in my file, and one of the few in existence actually showing a female frog answering the vocal pleadings of a male.

The best time to photograph frogs is during their courtship performances. The time of courtship varies pretty much with the latitude and temperature. Generally speaking, amphibians start courting in Florida during January while the singing season for frogs and toads in the northern states does not get under way until two months later. The courtship season in any given locality lasts about three months since some species start early and others late. A few frogs like the cricket and spring peeper will sing even in fall, but they are more difficult to approach at that time. The best place to look for singing amphibians is near water. swamps, roadside ditches, cattle ponds, and creeks are some of the favorite spots from which I have made pictures.

The number of eggs that a frog or toad lays varies according to size, age and species of amphibian. An American toad has been known to deposit as many as 12,000 at one laying. The embryo in frog and toad eggs may hatch in two or three days or as many weeks depending on the temperature and kind. The development or metamorphosis of the tadpole to the adult stage also varies greatly depending on the species. Some make the change in two or three weeks while others require two or three years.

I have shown my frog and toad courtship pictures to a good many of my acquaintances and they all think that an amphibian has a peculiar notion of a romantic courtship. My friends think it strange for a male frog to sit out in the middle of a pond, blow up his throat and utter some kind of a peep or whistle to woo his mate. I usually admonish them, if they think a frog's courtship ludicrous, by asking them to reflect back on their own courtship. I know, I'm married.

## Psychology of Photography

(Continued from page 16)

and understandable. The photographer must tread warily in these cases, as he is encountering a very real dread which

may turn to desperation.

Again, the existence of a double may create serious difficulties for your soul when you shuffle off this mortal coil. For example, the Mohave of our Southwest believe that every object which has been closely associated with a man during his lifetime must be destroyed at his death or his ghost will be unable to depart for the happy hunting grounds. A photograph, as a most intimate object, will tie the ghost to earth until it has been destroyed: so that the Mohave, though he may have no fears about the uses his photograph may be put to during his lifetime, will have a decided dread of having it in the possession of someone who cannot be trusted to destroy it at his funeral.

Some of the Mohammedan tribes of the Sahara believe that a photograph may



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bring about yet a different sort of trouble after death. The image of a man is a double of himself which will be resurrected as he is on Judgment Day. If the double arrives first at the seat of judgment, the real person will find that his place in Paradise has been preempted and that there is only one other place for him and a highly unpleasant place at that.

On the other hand, when natives have no beliefs which make them distrustful of the camera, human vanity comes to the fore and the photographer finds himself swamped with subjects. When I was living in the Marquesas Islands with a group of recently converted cannibals (the French officials assured me that the Marquesans were a very friendly people; they hadn't eaten a white man since 1910). I was incautious enough to show them prints of the first pictures I took. Immediately I found myself running a portrait studio.

Natives came from miles around and camped on my doorstep until I consented to take their pictures. The situation became so desperate that I had to take to the jungle in order to write up my notes and keep under cover until the sun went down. I was constantly receiving urgent requests to come and photograph some dead relatives lying in state. These photographs, printed as heavily as possible, would subsequently be tacked to a post in the native house and exhibited with all the pride of an old New England family keeping the coffin plates in the parlor.

These South Sea Islanders were more fully and elaborately tatooed than any tatooed man I ever saw in a Ringling Brothers side-show, but I could never get a photograph in which the intricate patterns stood out clearly. Finally, in desperation, I selected a particularly good subject and spent the better part of a day emphasizing his tatoo designs with lamp black. The subject was not only docile during this wearisome process but highly flattered. When I returned to his village a few days later to give him the promised prints, I found that he was still wearing his paint and had also painted up a number of his friends who were patiently waiting for me to come and photograph them also. Vanity had proved stronger than the native custom of the daily bath.

The main difficulty in getting photographs of such groups is that they have a quite natural objection to the candid camera. If they must be immortalized, they want to be looking their best, which means to them a dignified pose and their best clothes, which are usually European cast-offs. When the camera appears upon an everyday scene of work or play, they scatter to get into their finery. If you insist on taking them just as they are, they suspect you of trying to poke fun at them.

The modern camera fan, even in remote places, is likely to encounter sophisticated groups who understand the commercial possibilities of the camera and demand a price for posing. Most American Indians now belong to this class. If you promise an Indian a fee for being photographed, don't neglect to pay him. The Indian has a long memory and has been gypped too often by white men. Many of the Indians, while quite willing to pose individually, have an authentic objection to having their religious ceremonies photographed. The camera fan must respect these prohibitions or he is likely to have his camera, if not his head, smashed in.

The white man working with the camera among primitive people must win their confidence, ascertain what their reactions to being photographed are and upon what their objections, if any, are based. An attempt to take pictures by stealth or to be dogmatic about the process will arouse suspicion and antagonism which will be almost impossible to break down and will set up barriers for the next person who comes to that region. The genuine camera enthusiast owes it to himself and his fraternity to win the trust and not abuse the confidence of his subjects.

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## Photo of a Flash

(Continued from page 25)

stray light, and was successful in eliminating halation even against the full blaze of the flash bulb at its brightest, and less than one foot from the lens.

The bulbs to be photographed were mounted on a black wooden platform in front of the camera, with a background of dead black paper. No filter of any kind was used.

The Compur shutter was set at 1/250th second, and the camera was adjusted to give an image of about three-quarters full size, and so that the circle of illumination was restricted by the diaphragm and just covered the plate.

The synchronizer, an experimental model, (the Burvin, marketed in London by Peeling and Van Neck,) was then set so that after the circuit to fire the bulb had been closed the least further movement of the mechanism released the shutter.

The first photograph of the series was taken with this setting and the adjustment was then advanced progressively until the final stage of all was reached.

No accurate time scale was made but the total period covered about .16 second, and divided approximately as follows:

The first three phases occurred within .025 sec. after contact. Between 3rd and 4th the interval was about .01, between 4th and 5th, and 5th and 6th, .005 sec.; between 6th and 7th, .045, and between 7th and last, .07 second. The same shutter speed was used throughout and the stops varied from f45, for the strongest illumination, to f8 for the earliest and latest pictures. In the preparation of the photographs the regularity of performance of the bulbs (Philips Photoflux, Type 2, made in England) emerged very clearly. One bulb was used for each picture.

## Printing with Champlin-Color

(Continued from page 54)

After covering all of the red printers with the yellow printer, soak the blue printer, and ink and transfer in the same manner. The blue ink is very transparent and is much darker in its effect than either of the other two colors. Therefore, the deposit of blue ink upon the film matrix should be very light. Transfer of the blue printer upon the other two will create an almost magical change in the print for not until the third color has been added can you reaally see the true beauty of the prints you have been making.

Satisfactory prints can be made with three colors, but the best color rendition is always attained through the use of a fourth color. The purpose of this fourth color is to tone down some of the garishness of the other colors and to add life and reality to a color print. The color used for this purpose is gray and we attain gray with a very thin deposit of black. The fourth color should always be used wherever possible. The gray printer is soaked, inked and transferred exactly as the first colors were inked and transferred. This completes the inking process.

It is a good idea to ink and print all four colors one right after the other in order to determine the depth of color required in a good print. After making one complete print, then go into production with each color, for after a film matrix has been once soaked and inked, it must be used and then discarded. (At the present time, it is not possible to dry the film matrix and use it at a later date.)

Now, let's talk about some of the things which might cause trouble. First of all, do not undertake the inking of a film matrix before it is completely dried. Films which have been dried should be stored in envelopes in order to keep out moisture. A film matrix should never be inked in a room with temperature below 70° F. This is an important point because the inks used in this process will not deposit on the film matrix if they are cold. They will adhere to the roller but not to





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the film, or if they do adhere to the film, they will do so in a rather sketchy manner. If you must work in a cold room, have some way of heating the ink palette.

Always imagine that you are depositing twice as much ink as is necessary for a perfect reproduction of your color transparency. Try to see how little ink you can get on, not how much. With prints of too much contrast, add a little of the special ink thinner, but do not add any ink thinner until you are absolutely sure that such an addition will benefit the final print. Thinner generally creates a slight change in the color values of the inks.

Do not work too long on a film matrix because the moisture in the film will be absorbed by the air and the longer you work, the less tone quality you will actually have. An ordinary print should not require more than thirty seconds for a complete inking of one color. You can work on a print three or four minutes for a special effect. Do not return the roller to the print until you have either recharged it with ink or rolled it out over a clean place on the glass. After the roller has once traveled over the print, it will pick up ink from the highlights and there will be an uneven deposit upon it. You will find it impossible to get an even deposit of ink upon the film without first evening up the deposit of ink upon the roller.

The transfer of the film of ink should be done slowly and deliberately. The inked matrix is a soft and pliable film which is laid upon a piece of transfer paper that may already have two or three coatings of ink upon it. If you work hurriedly or with too much pressure, you may slide the matrix out of register and spoil the transfer. A slow deliberate movement through the wringer will avoid much of this.

Finally, don't worry about any overlapping of color around the edges of the print. Simply lay a straight edge or a straight piece of cardboard along the offending edge and with an ink eraser, erase until you have straightened out the edges of the print.

In the next issue of MINICAM, we shall

tell you how to control color and to effect changes and make general improvements upon your prints.

## MATERIALS REQUIRED FOR INKING

4 Champlin-Color inks-red, yellow, blue,

Champlin-Color rollers for applying ink. Several sheets 12"x16" plate glass.

I sheet opal or plate glass.

Chamois or viscose sponge.

1 piece mastic rubber.

Transfer paper (Strathmore illustration board or similar paper).

1 wringer with rubber rollers.

Any questions concerning this process may be addressed direct to Harry Champlin, c/o MINICAM Magazine, 22 East Twelfth Street, Cincinnati, O.

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heavier pieces near the center so the bag will balance properly when being carried.

From thin plywood make compartments to fit the larger items. Use fine wire nails to fasten the plywood together, and thin brads to fasten

this frame through from the outside of the bag. Then line the compartments with canvas, using a paste made of boiling water, wheat flour, and a little molasses.

The writer's case holds a Filmo doubleeight, Rolleicord, extra film, exposure meter, tripod, flash bulbs and reflector, filters, telephoto lens and closeup attachments. The last three items are kept in zipper tobacco pouches ready to be slipped into a pocket. Lens tissue, notebook, etc. go in the pouch on the inside cover of the bag. - George Carlson.

## Bass Bargaingram

Vol. 29, No. 6

JUNE. 1939

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June 30	XXXIVe International Salon of Photographic Art	4	40 Fr. francs	M. le Secretaire, Societe Française de Photographie, 51 rue de Clichy, Paris, 9e, France
July 1	International Photographic Salon	4	\$1.00	Mr. H. Kainz Munchen 9, Widdersteinstrasse 14 Germany
July 1	Victorian International Salon of Photography	4	5/s	C. Stuart Tompkins The Junction, Camberwell, E.6 Melbourne, Australia
August 1	Focus Fotosalon of Amsterdam	4	\$1.00	Focus Bloemendaal, NoHolland
August 15	Leica Exhibit		nit to number f prints	E. Leitz, Inc. 730 Fifth Avenue, New York City
August 31	International Rolleiflex Competition			Burleigh Brooks, Inc. 127 West 42nd St., New York City

### PRINT CONTROL

Print contrast can be controlled to some extent by governing the developer's extent of dilution. D72, for example, used 2 to 1 for enlarging papers will yield prints of slightly greater contrast than when used 4 to 1. On the other hand, for softer results, increase dilution by adding water. Some photographers use partially exhausted developer when soft prints are desired. Diluted developer also minimizes grain size in a print.

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## New Exakta Model

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will be added to this list.

Price with regular lens equipment, Exaktar f3.5, 8.5 cm., \$155; Tessar f2.8, 8 cm., \$200; Primoplan f1.9, 10 cm., \$360; or Biotar f2, 10 cm., \$450.

For more information, write Photo Marketing Corporation, 10 West 33rd Street, New York City.

### Iris Candid Camera



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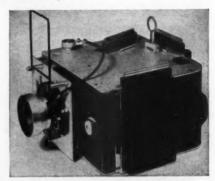
## Champlincolor Printing

A COMPLETE kit for making Champlincolor prints (as described by Harry Champlin in this issue of Mini-cam) will be marketed by Chemical Supply Co., Holly-wood, California. Each kit will contain supplies for 400 to 500 four-color prints. Each unit contains: A special inking roller, four special inks (red, yellow, blue, black), bleachers, developers, print paper and complete instructions.

### Color Scout Camera

A NEW two-mirror, three-color camera of near miniature sire, designed expressly for personal use, is announced by Thomas S. Curtis Laboratories, Huntington Park, California.

With lens and one dozen loads of film, total weight is but seven pounds and the size is comparable with a 2/4x3/4" reflex camera. It is constructed entirely of aluminum alloys.



This camera embodies many features making for pre-cision of register, color balance, freedom from internal reflections, maintenance of even illumination of the three

reflections, maintenance of even illumination of the three emulsions, speed of operation, and compactness and light-weight.

Speed of the Color-Scout is Weston 12 in daylight, resulting in fully timed negatives with exposures of 1/100 second at 78 in sunlight. A relatively long focal length lens is employed (7½").

Registration within 1/1000 of an inch is accomplished by adjustment of the mirrors in a novel optical arrangement which tests precision of register independently of its lens, making it possible to use any lens of adequate color correctness within the focal length permissible.

missible. The C. P. Goerz American Dogmar lens in either Compound or Ilex Acme shutter is standard equipment in the 14.5 series. The alternative lens is an 16.3 Bauch and Lomb Ilb Tessar in Compur shutter.

Curtis Color-Scout successfully employs film-packs without difficulty with register, making for compactness and convenience. However, those who prefer cut film or plates can obtain this camera outfitted with cut film or plate holders instead of the standard film pack adapters. adapters.

adapters. Price of the complete Curtis Color-Scout outfit including camera, three holders, Goerz Dogmar 4.5, 7½" lens in Compound shutter, lens shade, carrying case and three dozen loads of sensitive material is \$325. Same outfit with Bausch & Lomb IIb Tessar f6.3 in Compur shutter is \$280.

### Rotary Print Dryer

THE WEACO ROTARY PRINT DRYER will not overheat or scorch prints, even if they are left in the dryer with the current on overnight. Either glossy or matte prints will dry in as little as four minutes. Prints are placed on the drum, and a turn of the handle pulls the canvas cover over them.

The large model with chromium drying surface 24x29" costs \$19.95. The standard model handles prints up to 12x29" and costs \$9.95. Weight of the large model is 20 lbs. It uses 230-watts on AC or DC house current. Circular sent free upon request by the manufacturer — Warren Electric Appliance Company, Warren, Pennsylvania.

## SEE THESE PHOTO EXHIBITS THIS MONTH

City	Street Address	Dates Open	Name of Exhibition or Salon
Buffalo, N. Y.	Buffalo Museum of Science	June 7 to 30	Competition sponsored by nine camera clubs in and around Buffalo.
Memphis, Tenn.	Brooks Memorial Art Gallery Overton Park	June 1 to 30	Second National Memphis Salon of Photography.
Newport, R. I.	Art Association of Newport 76 Bellevue Avenue	June 11 to 18	Newport Tercentenary First Annual Salon of Photography.
New York City	Associated Press Bldg. Rockefeller Center	June 3 to 16	Second Annual Exhibit of Color Photography.
New York City	Manhattan Camera Club 310 Riverside Drive	June 5, 12 and 19, 8:30 p. m.	Show of Midwood Camera Club.
Washington, D. C.	Smithsonian Institution	June 1 to 30	Portraiture of Men, and Pictorial Photography.

### Whitehall Catalog

A NEW CATALOG describes the Whitehall darkroom clock, tripods, easels and exposure calculators. For a copy, write Whitehall Specialty Co., 1250 West Fullerton Avenue, Chicago, Illinois.

### Two New Free Folders

TWO FOLDERS describing photographic products may be had on request from Albert Specialty Co., 231 South Green Street, Chicago.
One folder gives facts about the Albert 4x5 and 5x7 all metal printers. The 4x5 sells at \$9.75 and the 5x7 at \$18.50.
The second folder describes the new Albert enlarging easel, having many features which make for easier enlarging.

enlarging.

## New Photographic Almanae

New Protographic Ammana.

A NEW 260-page 1939 Photographic Almanac, published by Central Camera Co., is now ready for distribution.

Included are the following subjects: How to choose a camera, the meaning of lens and shutter specifications, what to photograph, What film to use, Facts about lenses, Reasons for exposure meters, Weston film ratings, Filter charts, Color photography, Night picture taking, Flash photography, Paper negative work, How to set up a darkroom, How to make quality prints, Photochemistry, Choosing an enlarger, Retouching, Mounting, Tinting, Lantern slides, Choosing your movie outfit, How to make movies interesting (dramatization, editing, titling, etc.), Projectors, Screens, Bibliography of books on still and movie photography.

Available from Central Camera Company, 230 South Wabash Ave., Chicago, Ill. Price, 25 cents.



817.50 Gost-skin sipper case, \$1.25

# PHOTRIX SS

EXPOSURE METER

... to meet the exacting requirements of modern photography

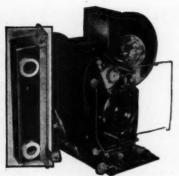
PHOTRIX SS HAS UNEQUALLED SENSITIVITY

gives distinct readings at light levels requiring as much as 60 sec. exposure time at F:8, 23 SCH. Its precision movement is made by Hickok, Cleveland, manufacturers of high grade electrical measuring instruments for more than a quarter century.

PHOTRIX SS IS EASY TO OPERATE. Its dial is completely self-explanatory. You cannot help operating it correctly... the very first-time.

PHOTRIX SS IS STURDY. The movement is housed in a strong one-piece bakelite case, protected by double window against dust and dirt. No protruding parts. Just a smooth compact unit, palm-fitting, amasingly thin . . . handsome.

INTERCONTINENTAL MARKETING CORPORATION, 8 West 40th Street, New York



## More GUES FOCUSING

When you must SHOOT FAST or lose the picture -what do you do? "GUESS-FOCUS?"

With the Kalart Lens—coupled Range Finder on your film-pack samera, all guesswork has been ruled out. Automatic focusing matches the speed and convenience of a minicam. You can be SURE that every negative will be needle-sharp.

odel "K", at \$18.00, fits practically all 6x9 cm. and 9x12 cm. m-pack cameras. Installation, \$2.50. Or install it yourself—

## The KALART



Study These Articles and Then Make Your Selection

"CHOOSING THE STILL CAMERA"

-Col. Townsend Whelen

"EXPOSURE" "ENLARGERS"

"CHOOSING THE MOVIE CAMERA"

-Horace Ashion

Every article sold unconditionally guaranteed. Don't guessi Bet this great aid to intelligent

REFUNDED ON FIRST PURCHASE 10% Down

Send 25¢

10% Monthly

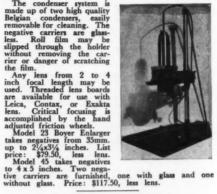
TARGET & SUPPL

## Boyer Enlarger

Boyer Photographic Equipment Co. of 7569 Waring Avenue, Hollywood, California, market four enlarger models. Illustrated is Model 22, which takes negatives from 35mm to 2½ x 2½ inches. Price: \$69.50, less

The condenser system is made up of two high quality made up of two mage. Belgian condensers, easily removable for cleaning. The negative carriers are glassless. Roll film may be slipped through the holder without removing the carrier or danger of scratching the film.

Any lens from 2 to 4 inch focal length may be used. Threaded lens boards are available for use with Leica, Contax, or Exakta Critical focusing is



## Monotone Viewing Filter

THE Monotone Viewing Filter has been developed as a practical aid in judging the lighting of scenes to be photographed on pan film. It is of value in judging the highlight and shadow contrasts without the confusing presence of marked color differences, and is of especial help in obtaining good indoor lighting.

For further information, write the Optical Development Corporation, 1560 Broadway, New York City. Price of viewing filter, \$1.50.

## MCM Photometer Book

OWNERS OF MCM PHOTOMETERS will want copies of the new book by A. J. Haynes, in which the possibilities of the MCM photometer are explored. Mr. Haynes explains how it is possible to obtain any desired tone in the final print from any given area in a negative, and also to determine before making the enlargement, just how other areas in the same negative will print. Printing-in time for clouds, etc. can also be determined in advance.

Write Raygram Corp., 425 Fourth Avenue, New York City.

### Speed Flash Quarterly

"SPEED FLASH PICTORIAL," published quarterly by the Kalart Company and distributed free, contains information on Speed Flash Photography and hints for taking better synchronized flash pictures. Examples of prize winning photographs and ideas for special lighting

effects are given.

The first issue of the "Pictorial" is now available—
A free copy may be secured by writing the Kalart
Company, 915 Broadway, New York City.

## Lafayette Catalog

A POSTCARD request will bring the new 40-page catalog of still and movie cameras, photographic equipment and accessories, issued by Lafayette Camera Corporation, 100 Sixth Avenue, New York City.

In addition to the listing of merchandise, also included is information on film and paper speeds, a photofiash exposure chart, a discussion of fine-grain development with chart showing development time for different films, etc. different films, etc.

## Negative Retouching Course

A HOME STUDY course in negative retouching is conducted by E. L. Johnson, inventor of the Johnson Electric retoucher. This course can be taken with or without the use of the Johnson Electric retoucher. No standard text books are used. Instead, negatives are given to retouch from the very beginning.

For further details, write the Cooperative School of Photography, 63 East Main Street, Patchogue, New York.

## PHOTO CONTEST CALENDAR

Open to:	Subjects	Prizes	For Copy of Rules, write to:	Contest Closes:
Amateurs in Florida	Any subject	Nine merchandise prizes, totaling \$105	A. E. Dawson Burdine's	June 10
Amateurs only	Each picture must include all or a recog- nizable part of the Ford Exposition Ex- hibit, New York World's Fair	Prizes for each period: 1st—Ford V-8 DeLuxe Fordor Sedan 2nd—\$200 cash 3rd—\$100 cash 4th—\$50 cash 5th—\$25 cash Next 25—\$10 cash	Miami, Florida Ford Exposition Photo- graphic Contest World's Fair, New York	Periods end: June 30 July 31 Sept. 4
Camera fans everywhere	Pictures featuring tea or coffee	Two first prizes, \$50 each; Two \$25 each; Two \$15 each; Two \$10 each	The Spice Mill 106 Water St. New York City	July 31, 1939
All Westchester County (N. Y.) residents	Subjects taken at the New York World's Fair. Entry fee, \$1	Grand prize: \$25. Also merchandise certificates	Photographic Stores in Westchester County or Huguenot Camera Club Y. M. C. A. New Rochelle, N. Y.	Aug. 15
Anyone	Any subject; must be taken with a Kalart Micromatic Speed Flash	25 awards—\$10 each	Kalart Company 915 Broadway New York City	Dec. 1, 1939
Amateurs only	Any subject	First prize, \$50; 15 prizes of \$5 each	Photo Editor Redbook Magazine 230 Park Avenue New York City	New contest each month

### Camera Courses

SPONSORED by the University of California Extension Division, courses in Miniature Cameras, Darkroom Technique, and Pictorial Photography, are being conducted by P. Douglas Anderson F. R. P. S. in San Francisco and Oakland. Field trips in Yosemite Valley, giving a week's practice in outdoor photography, are announced for July 10—July 22.

## Viewing Filter

THE BEE BEE MONOTONE VIEWING FILTER (\$1.00) gives a one-color rendition of any scene. This new filter is made of dyed-in-the-mass glass. It has no gelatin or plastic composition to deteriorate. It is about two inches in diameter and supplied complete with a leather case. Burleigh Brooks, Inc., 127 West 42nd Street, New York City, is distributor.





The DeJur-Ameco Exposure Meter, with the new Zero Adjuster, is your permanent assurance of good pictures. It is ultra-sensitive, giving readings under practically all light conditions. It may be used in fullest confidence indoors or outdoors, for still or moving pictures, black-and-white or color. Ask for it at your dealer, or write for detailed information — Dept. M-G.

Made in America for all the world by

Delugaseo Careranas



Armed with this modern Weltur you can freeze the fastest action on your film. Get those fleeting expressions—those split second shots that make for better pictures. Weltur is designed for speed. Fast lenses—Compur shutters and coupled distance range finder provide an unbeatable combination for prize winning pictures in every branch of photography, amateur or professional. Weltur gives you two picture sizes from one camera—12 negatives 2½x2½ or 16 negatives 1½x2½ on 120 film. See Weltur at your dealer.

FREE CATALOG Loaded with unusual bargains in fine still and movie cameras, lenses and gadgets. It's free. Write Dept B4 for your copy today.

BURKE & JAMES, Inc. 223 W. MADISON ST. . CHICAGO, ILLINOIS

## The New Bee Bee **Negative Viewer**



For 35 mm. Film Also Has a Frame for Color Slides 2" Square

THIS new Bee Bee Negative Viewer is an effi-cient, small, compact device consisting of a 4X magnifying lens in an adjustable metal tube, attached to a 35 mm. track. A special auxiliary frame is provided for viewing negatives up to 2x2 inches in either black and white or color. Ideally adapted for viewing Argus, Contax, Dollina and Leica frames, Kodachrome and Dufaycolor slides up to 2 inches square. Only..

The regular Bee Bee Negative Viewer for 35mm. film only is still available at \$3.50

Extra tracks for 16 mm. and 8 mm. film, for use with either of above, \$1.75 each. At leading dealers everywhere. Literature sent upon request.

## BURLEIGH BROOKS

127 WEST 42" STREET NEW YORK

## Enlarging-Exposure Calculator

THE PRINT-MAKER, a time and money-saving en-larging-exposure calculator, is announced by Holmes Pho-to Supply, 2829 Girard Avenue, So., Minneapolis, Minn. The Print-Maker is

printed on heavy card stock, for easy legibility under dark-room light. Its ad-justable scales are set just once for each negative; they solve problems involving time, distance, mag-nification, reduction, lens apertures, paper speeds, and will interconvert Metric - English measurements. It gives an exposure factor (neg-ative density factor) for each negative. The Holmes Photo



The Holmes Photo Supply Line is made especially for the amateur and semi-professional and includes: Print-Master, the amateur print-straightener; Print-Vac, small vacuum printing frames, (Ilx14 up); Sequence-Wind, adapts many makes of cameras for sequence photography; Sequence-Flash, adapts any flash-synchronizer for sequence flash-bulb photography.

## Jack Powell Etching Screen

Jack Powell Etching Screen
THE JACK POWELL Etching Screen now is available
in new styles, for obtaining a variety of textures in
photographic prints.
The Renaissance screen transforms an ordinary portrait or landscape into an "Old Master." The Jack
Frost matrix gives an appearance not unlike a large
crystal pattern; the Tapestry produces a distinctive textured quality; the Bromoil beautifies and softens a print
in the manner of the Bromoil Process; the Paper Negative screen causes a picture to have an air-brushed or
charcoal appearance; the Steeline gives the effect of a
fine steel engraving; and the original Freeline etching
screen adds the drawing and snap of a hand-etched
print.

print.

Former price of \$10.00, for the 11x14 size, has been reduced to \$3.50. The 8x10 size is now \$2.50, while the 5x7, available only in the Freeline style, sells for \$1.50. The Kemp Camera Supply Company of Alhambra, California, manufacturers, invite requests for descriptive literature.

literature.

FOR TIMING enlargements, the Sure-X Electric Photometer is manufactured by the A. G. Laboratories, 1257 St. Johns Place, Brooklyn, New York.

The Sure-X measures the intensity of the light coming through the negative while in the enlarger. The well-known Bunen "grease-spot" principle is used to match



the light, and a double moving scale converts this measurement into useful information as to paper, grade, and time of exposure.

Sure-X measures the scale of the negative to determine the proper grade of paper. It also measures proper exposure time, giving length of exposure in minutes or seconds, directly on the face dial. There is nothing to compute, no "corrections" to make. American made, it sells for \$4.25.

## "Paper Safe"

PAPER SAFE, as its name indicates, is made to hold enlarging paper and keep it from light without the necessity of re-wrapping the paper after each sheet is withdrawn. Paper Safe holds up to half a gross of assorted grades on separate shelves, and partitions provide for different size sheets. de for different size sheets.

Paper Safes are absolutely light-tight. The doors



cannot be opened accidentally. Four shelves accommodate ample supply of paper. Retails at \$2.95.

The DeLuxe Model Paper Safe is made of wood, covered in black leatherette. The door is raised in vertical tracks to open, and closes automatically when released. A spring catch at the bottom keeps the door closed until it is purposely opened. Price, \$3.95. Marketed by Motion Picture Screen and Accessories Co., 351 West 52nd Street, New York City.

### Lenses for Lerochrome Color Cameras

MEYER PRIMOTAR and ARISTOSTIGMAT lenses MLSTER FRIMOTAR and ARISTOSTIGMAT lenses have been selected as standard equipment on Lerochrome Color Cameras by International Photographic Research Laboratories of New York. Information regarding Meyer lenses for color photography may be had by writing to the makers, Hugo Meyer and Co., 39 West 60th St., New York.

## New Federal Enlarger

NEW FEDERAL ENLARGER, Model No. 245, has been announced, and includes the following features: Condenser lens (4½") and opal diffusion plates are supplied, so that either

supplied, so that either condenser or diffusion system, or combination of both, may be used. An opal lamp, mounted on an adjustable slide for raising or lowering, and a parabolic reflector, supply light. a concentrated

light.

A scientifically designed ventilation system keeps the lamp housing cool. The book type negative carrier can be used with either dust-proof metal plates or with glass plates, and is equipped with a pressure release for the adjustment of negatives while in the machine. machine.

14.5 An lens, mounted in a barrel type Iris diaphragm, phragm, stands on an easily removable lens board. A balanced lever permits precision adjust-

Heavy steel upright post, 13%" diameter x 36" high, permits linear enlargements from 2 to

8 times on baseboard (16"x21"). Lamp housing can be swung around to project images on the floor for enlargements over 20 times.

Accessories include filter attachment, 125 watt projector lamp, control switch, cord or plug. Operates on

AC or DC.
Prices: No. 245, complete, \$39.50. Model No. 230 (same as No. 245 with f6.3 lens), \$34.50.





IS YOUR TANK OBSOLETE?

Just as in automobiles . . . the trend in darkroom equipment is toward greater simplicity and allaround efficiency. Elkay provides not only the newest and most complete speed tank, but also the most economical in original cost and operation.

Get the New ELKAY ADJUSTABLE

ROLL FILM Speed TANK

Newly designed wide top acts as utility funnel and prevents spilling of liquid. "Split-Second" loading reel is adjustable from 35mm to size 116 . . . the film slides in like magic. Entire tank is made of tempered bakelite to assure years of satisfactory service.

and "Split-Second" Loading Reel COMPLETE

With Wide Funnel-Top

Made in the U. S. A. At your dealer or write for your FREE copy of "How To Develop Roll Film" — by sert C. McKey, F. R. P. S.

ELKAY PHOTO PRODUCTS · 303 Washington Street, Newark, New Jersey

## SEPARATION NEGATIVES FOR CHAMPLINCOLOR **COST ONLY \$1.00**

Harry Champlin will make four matched separation negatives from your 35 M.M. **Dufaycolor** and Kodachrome transparencies, \$1.00 per set; check, money order or cash, must accompany order.

## HARRY CHAMPI.IN

9488 Santa Monica Blvd., Beverly Hills, Calif.

### Preserve

## MINICAM

for future reference



in this handsome cover which has been adopted as the Official Minicam Binder. It binds without cutting, punching or mutilating. Each issue securely and quickly LOCKED in place, yet easily removable, Beautiful leather-like covers with gold stamped titles. Only by special arrangement between publisher and manufacturer can this be offered at the low price of

## \$1.50 postpaid

Cash with order, but complete satisfaction guaranteed or money refunded.

THE GILMER BINDER 228 Chancellor St., Philadelphia, Pa.

### The Primotar Lens

FOLMER Graflex Corporation, makers of the Speed Graphic, announce that the Meyer Primotar /4.5 lens, 5½4 focus, is now offered as optional standard equipment on the 3½ x4¼ and 4 x5 Speed Graphic Cameras.

The Primotar is a universal lens that yields pictures

ness and highest brilliance. It is a half-cemented, a half-cemented, air - spaced, un-symmetrical fourl e n s anastigmat whose corrections for astigmatism and for spherical spherical and chromatic abercarried out to a high degree. Needle - sharp-

ness to the ex-treme edge of the field is characteristic of the action of this lens, and microscopic definition over the entire

Showing optical construction of the Meyer Primotor f3.5 and f4.5 lens.

scopic definition of the Meyer Primotor f3.5 over the entire and f4.5 less. field, even at full opening. It is fully corrected for the exigencies of modern color photography.

Due to its compact construction, it is quite well adapted for use with folding cameras and because of its extraordinary traits, is adapted for use with miniature cameras as it yields critically sharp negatives of unsurpassed enlarging characteristics. The single elements of the Primotar may not be used individually.

The Meyer Primotar may be purchased as additional equipment by those now having Speed Graphics or other cameras with interchangeable lenses. It is available in f3.5 as well as the f4.5 speed and comes in focal lengths suitable for both miniature and larger size cameras. It may be purchased in barrel or in Compur and compound shutters.

Full information regarding the Primotar lens may

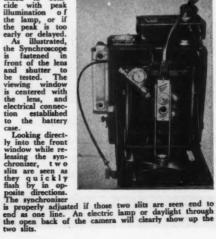
Full information regarding the Primotar lens may be obtained from Hugo Meyer and Co., 39 West 60th Street, New York City.

## The Synchroscope

The Synchroscope

THE SYNCHROSCOPE, a new device for testing synchronization of camera shutter with peak intensity of photoflash bulbs, has just been perfected by The Kalart Company, 915 Broadway, New York City. This new instrument does not require the use of flash bulbs, film or a dark room. A clear visual indication is given of the shutter timing in relation to flash bulb peak intensity. It is immediately apparent to the eye whether the rthe speed flash is timed to coincide with peak

cide with peak illumination of the lamp, or if the peak is too early or delayed. As illustrated, the Synchroscope is fastened in front of the lens and shutter to be tested. The viewing window is centered with the lens, and 01 the lens, and electrical connec-tion established to the battery



Tests and adjustments can be made in a few minutes, as the Synchroscope is easily operated and requires no extra equipment. It will prove a boon to newspaper photographers and other frequent users of photoflash synchronizers.

### Photrix Meter Attaches to Camera

THE PHOTRIX exposure meter can be attached to the new Agfa Memo camera.
The Photrix
Adapter fits the
standard range finder bracket as found on many well known cameras

The Photrix

In a Friotrix meter can also be worn on the wrist like a watch. For further details, write the Intercontinental Marketing Corp., 8 West 40th Street, New York City.

## Photoflash for Focal-Plane

TWO NEW aluminum wire photo lamps, having extra-long flash duration for focal-plane shutter synchronization, are announced by General Electric The smaller lamp, designated as G. E. Focal-Plane Lamp No. 30, is recommended for use with cameras equipped with focal-plane shutters up to and including the 2/4"x3"/4" size. The larger lamp, designated as No. 31, is recommended for all focal-plane cameras including the 4"x5" size.

Both lamps are designed for use with two or more standard flashlight cells or dry batteries only. Neither should be flashed from regular lighting circuits.

List price of the No. 30 is 28 cents; of No. 31, 30 cents.

### New Speedguns

A COMPLETE LINE of new Speedguns is announced by S. Mendelsohn, Speedgun Corporation of America, Bloomfield, New Jersey.

Models for Contax and Leica cameras can be fitted to the camera as simply as a filter, are perfectly synchronized, and are so designed as to obviate any necessity for adjustment.

Also new is a model for Automatic Rolleiflex (which attaches by means of one screw in tripod socket,) and for the Agfa Memo camera.

Cameras such as Super Ikonta B, Retina II, Argus Model C and others with a body shutter release, are synchronized by means of a new Body Release Speedgun.

Also included are Speedguns for the focal plane shutters of Speed Graphic and Graflex cameras.

## Exposure Meter



## Kaiko Products

KAIKO PHOTOGRAPHIC products are now obtainable through Raygram Corporation, 425 Fourth Avenue, New York City.





## PANCHROMOSA

The House of Photographic Value's



Pictures

NEW YORK, N. Y.

The pictures you take are always the best when the film in your camera has a perfectly balanced color sensitivity—speed for action shots and unfavorable light conditions—wide latitude to protect against serious over- or under-exposures—fine-graininess for perfect enlarging. PANCHRO-MCSA always yields a generous amount of these qualities—the prime reason for "perfect pictures." Panchromosa is supplied in permanent refillable catridges of 36 exposures with 36 exposure refills. 18 exposure rolls (no refills) also supplied. And for extremely fine grain, there is PANCHRO-MCSA MICROGRAN supplied as above (no 18 exposure rolls).

THE GEVAERT COMPANY OF AMERICA, Inc.

423 West 55th Street, New York Boston • Philadelphia • Chicago • Los Angeles San Francisco • Toronto • Montreal • Winnipeg

## 1/1500th of A Second

THE NEW Univex Mercury camera has shutter speeds up to 1/1500th second, lens speeds up to f/2, and built-in photoflash synchronizer.
With 1/1500th second shutter and f/3.5 lens, price \$29.75; 1/1500th second shutter and f/2 lens, price

For more information, write the Universal Camera Corp., 28-30 West 23rd Street, New York City.

### New Electrophot Model

Outstanding feature of the new Model 14 Electrophot is its higher sensitivity. Other features are: Instant direct f-stop readings for black and white; instant finger-tip conversion readings for all stills, color, movies and shutter speeds from 1/1000 to 2 seconds; jeweled bearings; non-glare bakelite cases in black, ivory or mahogany; and two wide-range comparative film speed readings.

Price remains at \$10. Distributed by Raygram Corp., 425 Fourth Avenue, New York City.

## New 5 x 7 Enlarger

A NEW 5x7 enlarger is to be marketed under the trade name of Solar by Burke & James, Inc., 223 W. Madison Street, Chicago, Illinois. Price, less lens,

Madison Street, Chicago, Illinois. Price, less lens, \$\$52.50. This enlarger incorporates many features found in miniature enlargers. It permits the use of lenses from 3½ to 7 or 8 inches in focal length. The enlarger is furnished with a baseboard, forming one integral unit which tends to eliminate vibration. Complete information regarding this new enlarger may be had from Burke & James, Inc.

## Bauhaus School of Design

THE SCHOOL OF DESIGN, Chicago, will introduce two Summer sessions this year from July 10 until August 18.

The curriculum includes basic workshop with hand tools and machines, drawing, color work, modeling, lettering, photography and fundamentals of architecture. The photography course may be taken separately if desired.

For application, write School of Design, 247 East Ontario St., Chicago, Illinois.

## New Thalhammer Tripod

DISPENSING with chrome plating and some of the more deluxe fittings, yet retaining rugged and precision-built qualities, the Thalhammer Co. is now manufacturing a new tripod—"Thrifty-10"—which sells for

cision-built qualities, the Thalhammer Co. is now manufacturing a new tripod—"Thrifty-10"—which sells for only \$10.

Its tilt-pan head incorporates the exclusive Thalhammer "Instant-On" Plug. The tripod is made of selected, seasoned wood, finished in clear lacquer, and metal parts are polished or coated with black enamel. Either the head or tripod alone may be purchased separately for \$5.50.

### New Sound Recorder for Home Movies

A NEW SOUND recording and reproducing instru-ment has just been announced by the Presto Recording With this recorder you can record voices or music while the picture is being filmed, then playback the



records while the picture is being shown. Surprisingly good synchronization can be obtained.

Dual turntables make it possible to record and playback records without interruption. In addition, the

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machine can be used as a public address system to serve groups up to 300 people.

The Presto model M recorder consists of two 12" turntables. The records are cut at 100 lines per inch giving a playing time of 3 minutes on each side of a ten inch record and 4 minutes on the twelve inch record. Recordings are made on Presto cellulose coated discs, identical with those used by the larger broadcasting stations for making electrical transcriptions. Recordings of this type are notable for their almost complete lack of needle scratch. discs, identical with those used by the larger broad-casting stations for making electrical transcriptions. Recordings of this type are notable for their almost complete lack of needle scratch.

Instructions on the use of the recorder, including methods of synchronizing the records with the film, are given in a booklet issued by the Presto Recording Corporation, 242 West 55th Street, New York City.

Copies are available on request.

## How Cartoon Movies Are Made

How Cartoon Movies Are Made

NEARLY every Hollywood visitor has endeavored
(without much success) to crash the studio gates to see
cartoon movies in the making. Now the veil of mystery
is lifted by Lowell Thomas in the Universal 16 mm. film
"Cartoonland Mysteries" available on rental from Bell
& Howell Filmosound Library. In this film the making
of an Cawald Rabbit cartoon "Softball Game" is explained in interesting and hilarious detail.
A combination of the "how-it's-done" film "Cartoonland Mysteries" and the completed film "Softball
Game," (which the former film shows in production),
are offered by the Filmosound Library.
The rental for both films is \$3.00. For further information write Films Division, Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Illinois.

### Feature Film Releases

TEN UNIVERSAL feature film, including such outstanding releases as "Show Boat" and "My Man Godfrey," will henceforth receive distribution through Bell & Howell's Filmosound Library instead of the Eastman Kodascope Library, through which they formerly had been available. The switch was occasioned by the Eastman Kodak Company transfer of film rental activities to that company's retail stores.

This change adds 10 Universal features and 15 short subjects to the 27 features, 3 serials and 55 shorts already handled for Universal by Bell & Howell.

A new catalog supplement describing many recent film additions will be sent free, on request, to any 16 mm. sound film user. Address Film Division, Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Ill.

### New Turret Camera

A 3-LENS turret mount 8 mm. camera is announced the Universal Camera Corp., 28-30 West 23rd treet, New

Street, New York City. This camera will retail for only \$25 with a \$4.5 lens, or \$29.95 with

n f3.5. Provision for an two additional lenses is made, and lenses of varying speeds or focal lengths may be select-Any one ed. lenses may be snapped into position instantly. The

new Turret Camera

complete with the three len-ses weighs less than 3 pounds., which means that portability has not been sacrificed.

## Cine Dufaycolor

ALDO ERMINI, color photography expert formerly with the Technicolor Corporation of Hollywood and London, and now appointed to the staff of Dulaycolor Company, Inc., will have charge of the development and introduction of the new Dulaycolor process in the motion picture field.

## The NEW ALBE ADJUSTABLE ROLL FILM DEVELOPING TANK Lifetime Guaranteed POSITIVE ADJUSTMENT FEATURE PATENT APPLIED FOR 1 2 **NEW EXCLUSIVE ADVANTAGES** Positive-locking, "4-in-1" center post adjustment, can't allp to crush or buckle film. LIFETIME GUARANTEED (never any

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f/2.8	 	470
	Tessar	\$72

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## 16mm. Newsreel

THE INITIAL PERFORMANCE of 16 mm. sound film, in color, on the regular 35 mm. screen, of a public theater, was given recently in the Rockefeller Center Newsreel Theater, New York City. It was agreed by the many attending theater executives that only the trained eye of one experienced in motion picture projection could distinguish that a change had been made from 35 mm. to 16 mm. film.

Projection of 35 mm. and 16 mm. film.

Projection projection projection projection and projection the same a projection of the same and projection of the same and projection of the same approjection the same are projection.

Projection of 35 mm. and 16 mm. film was smade from the same projection booth, covering same length of throw. The 16 mm. picture completely filled the regular theater screen used for 35 mm. pictures

tures. The 16 mm. project i on machine used in this epochmaking perfoor mance was one of the new Bell & Howell Filmoarcs, 16 mm. arc-lamp sound film projectors. This is said to be the most powerful 16 mm. sound film projector.

This news is of importance, not only to theater executives but to amateur 16 mm. camera users interested in providing community newsreel shots for performance at lo-

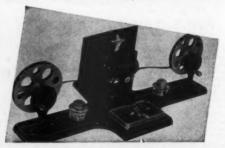


 The new Bell & Howell Filmeare, 16 mm. are lamp soundon-film Projector, in the model which includes an adjustable leg stand for maximum portability.

newsreel shots for performance at local theaters. It is anticipated that the Filmoarc-equipped theater management will cooperate with resident 16 mm. movie camera owners to make local newsreels a highly exploitable box-office attraction to every public theater performance. Complete information regarding the Filmoarc 16 mm. projector may be obtained by writing Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Illinois.

### 8 mm. Projecto-Editor

AN 8MM. MODEL of the Craig Projecto-Editor is now being shown at leading photographic dealers. Like its 16mm. counterpart, it dispenses with mechanical shutters. Film may be drawn through fast or slowly



while movement on the viewing screen remains smooth and blurless. The film lies in place between highly polished guides, and can be removed at will for cutting and splicing.

The complete outfit includes the Craig Junior Rewind and Splicer combination, mounted on a hardwood base, and a bottle of film cement. Price, \$27.50. Projecto-Editor units may be purchased separately for \$22.50.

## March of Time Movie Filmed with Hand Camera

AN ACE Cameraman, though only 25! Victor Jurgens, March of Time's youngest photographer, traveled 18,000 miles to film March of Time's newest behind-the-scenes story: "Japan, Master of the Orient."

For the entire movie story, exposing 40,000 feet of theater-standard 35 millimeter film, Jurgens used the



small, compact, turret-lensed Bell & Howell Eyemo Camera so commonly used by ace news-reel cameramen. Jurgens explains that the extreme portability of this camera facilitated his making pictures in hazardous and cramped circumstances; enabled him to get shots of troops under fire when he was on the ground with them and when he was flying less than 1,000 feet above. The Eyemo 35 millimeter camera is the professional big brothers of the Filmo 16 mm. and 8 mm. cameras manufactured by Bell & Howell Company for amateur use.

## Photoflood Switch

Photoflood Switch

A switch designed to prolong the life of photoflood lamps, reduce heating and minimize the glare to which a subject is exposed while posing, has been introduced by the Lafayette Camera Corporation, 100 Sixth Avenue, New York City.

Up to four photofloods can be plugged into the unit. In the "Hi" position the lamps provide normal illumination. In the "Lo" position, each lamp receives only a part of the total line voltage. At this reduced voltage, lamp life is increased to several hundred hours instead of the usual 2 to 6 hours. The reduced illumination is ample for focusing and other preparatory operations and the "Hi" value is needed only when determining the best placement of lights and when snapping the picture. Price is \$3.89.

## Range Finder



The DeJur-Amsco (\$5.50) range finder employs the superimpositon-image principle, and has camera mounts to fit all cameras. For further details, write to the DeJur-Amsco Corp., Shelton, Conn.

### Adjustable Frames

"Braquettes" are adjustable framing devices for photographs from 9" to 37" tall. Short grooves fit over the top and bottom of the picture mount, which can then either be stood on a flat surface or hung on the wall. Pictures can be changed easily and quickly. Bracuettes come in three sixes: "Gallery"—extends 14" to 24"; "Portrait"—extends 9" to 14"; "Exhibit"—extends 21" to 37". Choice of finishes.
Write Braquette, Inc., 225 Fifth Ave., New York City, for further details.

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The Brilliant is equipped with F:7.7 lens, and takes 12 pictures 21/4 x21/4 on standard 120 film. It has an automatic stop to prevent over-winding, and a built-in "holdall" compartment to carry filters, etc.

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flashbulbs or him may be used. Electricameras will be available for other types of box and fixed focus combinations. For informations, write Electricamera Corp., (Licensees of the Abbey Photo Corp.) 305 East 45th St., New York City.

## Ensign Autorange Camera

The Ensign Autorange Miniature Camera, manufactured in England, takes 12 pictures 2½x2½/ or 16 pictures 2½x1½/ or A synchronized range finder combines view finder and focusing. The camera is streamlined, making it convenient to pocket.

With Zeiss Tessar /2.8, price \$90; with Zeiss Tessar /4.5, price \$72. Distributor is G. Gennert, Inc., 20-26 West 22nd Street, New York City.

## Bass Cine Catalog

The Cine Bargaingram No. 240 is a 66-page catalog covering new 8 mm., 16 mm. and 35 mm. silent and sound equipment. A copy of this catalog will be mailed free on request by Bass Camera Co., 179 West Madison free on reque St., Chicago.

Viewing Filter
The Fedco "Tone Control" Filter is made of cobalt blue glass, optically ground. Complete in carrying case with neck cord, \$1.00.

### "Speedo" Print Dryer

The Speedo print dryer is a fast-drying unit with five square feet of drying surface. It will accommodate six 8x10", five 11x14" prints, or their equivalent, at one time. Prints cannot be harmed regardless of how long they are kept in the machine. The "Speedo" operates on 110 A. C. current, the heating element using only 330 watts. Overall dimensions are 11"x15"x11", and entire weight is 12½ pounds. Further details may be had from General Devices Corp., Carew Tower, Cincinnati, Ohio.

### 8 mm. Camera

The Revere Super Eight motion picture camera uses Revere Super 8mm. panchromatic film, a fine grain and high-speed emulsion. Price of camera, \$21.95; film, \$1.35. Made by Revere Camera Co., Chicago, Illinois.



Combined Range Finder and Exposure Meter The Saymon-Brown combination range finder and exposure meter (\$6.75) can be easily attached or reThe exposure meter (\$2.00) also is sold as a separate item. Distributed by Raygram Corporation, 425 Fourth Ave., New York City.



### Benwin Tilting Top

Benwin Products, 47 Bond St., Brook-lyn, New York, have just introduc-ed a new tilt top, (\$2.50) featuring a "finger tip" lock-ing device. The swung from side to side, or up or down, locking tight in any given posi-

## Abe Cohen's Exchange

An 84-page catalog, including both still and movie cameras, movie projectors, and other photographic equipment, may be had on request from Abe Cohen's Exchange, 142 Fulton Street, New York City.

## New Agfa Film

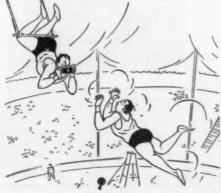
Agfa Minipan is designed for microcopying and documentary recording. The new film is capable of resolving up to 135 lines per mm. (3400 lines per inch) according to the precision of the recording equipment

### Color Slide Viewer

The new Bee Bee Illuminated Viewer accommodates the usual 2 x 2 glass slide or 35 mm. film strip and enlarges the image to about 2½ x 3¾ inches. There is a six foot cord and handy snap switch. Available through leading dealers. Distributed by Burleigh Brooks, Inc., New York City. The price is \$10.00. A special slide carrier for 35 mm. film costs \$1.75.

### Telephoto Lens On Display

Chicago residents have an opportunity to inspect a lens that looks more like a telescope. It is the 500 mm. Zeiss Far-Objective for the Vontax camera. The 20-inch focal length of this lens produces approximately 10 times as large an image as the standard 2-inch (50 mm.) lens. The angle of view is 5 degrees. The tele-objective may be seen in the windows of Wells Smith Co., 71 East Adams St., Chicago.



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## Handy Lens Shade

An efficient lens shade may be easily made from a rubber stopper, which can be secured from a drugstore or chemical supply house.



The diameter of the small end of the stopper should be about ½-inch larger than the diameter of the lens barrel. With a sharp knife, cut out the center slightly smaller than the lens barrel and finish it up with a round rasp or file.—Warren Rombough.

## Viewing Filter

A monotone viewing filter, which reduces all colors to varying shades of gray, gives an idea of the contrast in a subject before it is taken and also brings out the shadow areas.

A viewing filter can be easily made by mounting dark blue cellophane between two pieces of clear glass. One piece of cellophane is usually enough. The glass should be about 3x4 inches so that both eyes can be used in



viewing. Use any kind of binding tape to hold the glasses together.

A filter of this kind is especially useful for closeups and portraits. To test the filter for portraiture, place a single No. 2 photoflood about eight feet from a subject, above and at a 45 degree angle. Then stand 12 feet away, directly in front of the subject, and look through the viewer. Detail should be just slightly visible in the shadows on the side opposite the photoflood. If the viewer is too

thin, add another piece of dark blue cellophane. - Andrew C. Bruening.

## Darkroom Timer

A darkroom timer can be made from a cigar box and pencil type flashlight, obtainable at the dime store.

Mount the flashlight through a hole in one end of the box; a piece of felt around the hole will make it light-tight. Glue a small block of wood inside the box to rest the end of the flashlight. Make another hole alongside the flashlight, and fasten with adhesive tape a short piece of cardboard tubing around the



hole on the outside of the box. This forms the eye-piece. Inside the box, and opposite the tubing, hang a watch on a tack or small nail.

When the eye is pressed tightly to the tube and the flashlight snapped on, no light escapes.

Make the lid from two pieces of wood: The upper one large enough to cover all the box sides and the bottom one a little smaller, so that it fits snugly between the box sides. This forms a light-proof cover, and a rubber band around the box will keep it tight .- George Carlson.

## Ferrotype Tin Rack



Two strips of pine board and a couple of brackets suffice to make a rack to hold ferrotype tins when not in use. The rack may be placed under a table and out of the way. Blotters or sheets

of newspaper between the tins keep them from scratching.-Walter Zernschel.

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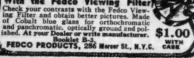
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## Surprinting

When it is desired to call special attention to one particular object in a photograph, the following method is effective: Cut an arrow of the proper size from black paper, and place it in the desired position on the enlarging



paper while the red filter is on the enlarger lens. Then remove filter and expose with arrow in place. The result—a white arrow pointing to the desired spot.

Circles, stars or any other appropriate figure may be used in the same way. This method can also be used to print one's name or initials on his work.—Howard Brisco.

## Editing Aid

Make a handy "stripping reel" for long lengths of film (which are cut from the main reel in movie editing), from an old projection reel on which film is returned from the pro-



cessing station. Straighten the three tiny flanges on one side, and re-move one side of the reel. Cut a circular piece of wood, as thick as the reel hub and with a hole in the center to fit the rewinder shaft; this should fit snugly inside the hub. Bend downthe flanges to hold it tightly. File sharp edges and

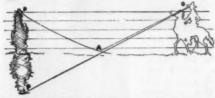
cover the hub with adhesive tape to prevent

Instead of rolling up a long clip by hand, merely reel it on the "stripper" and slip off the open side in a neat roll, ready for the editing or breakdown board.—George Carlson.

## Mirage Photographed

(Continued from page 19)

faster than it can rise, thus placing the denser strata above instead of, as usual, below the rarer. Rays of light for a distant object above the ground originate in the denser medium. Moving nearly parallel to the earth's surface, the rays meet the rarer medium at an obtuse angle and are bent or refracted.



• Illustrating how a mirage is seen. The rays of light from the top of the tree "P" are refracted (bent) by the layers of atmosphere from "P" to "A" to "O." The horseman, therefore, imagines that he is looking along a straight line OAP. He sees the tree inverted. The inversion leads him to believe he is seeing the reflection of the tree in water—a lake.

The image may be inverted or erect, but at a distance from the real object, like an image reflected in water. If the object is a cloud, it will appear to be a sheet of water on the ground. As the air surfaces are irregular, the mirage will be constantly varying in appearance like a water surface ruffled by wind.

## Thermometer Holder



To keep thermometer visible in tray, use a square of sponge rubber.

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## Darkroom Safety Tips

FOR reasonable care in the use of chemicals, acids and electrical equipment, remember these points:

DON'T handle acids with bare hands; use rubber gloves. If you should be splashed with acid, apply baking soda or other alkali.

DON'T hurry. Accidents usually occur through carelessness caused by haste.

DON'T take a drink of water in the darkroom without turning on the light.

DON'T leave your chemical closet or drawer unlocked if there are children of any age in the house. And then, there is your own blood pressure to consider. Suppose the youngster got into your bro-



Dry hands before touching a light switch. Don't handle a water faucet and electric switch at the same time

mide paper and scattered a gross of 8 x 10 around, Keep It Locked.

Some persons are susceptible to skin irritation from paraphenylene diamine used in fine grain developer, and others to metol. If you are one of these:

DON'T use a paraphenylene developer unless wearing rubber gloves.

DON'T place your hands in print (or film) developer containing met ol. Use print tongs.

And then we come to our electrical appliances. If you build your own darkroom apparatus, always use rubber covered cord, and bakelite switches and light sockets.

DON'T reach



Caught in the act. Keep your chemical closet locked. Youngsters like to investigate.

for a light switch and faucet at the same time. House current is usually grounded to the water system and you can receive a nasty jolt. Always wipe hands dry before touching a switch.

DON'T leave home made ap-





- An easy way to start a fire (above). Leave air space between diffusing eloth and reflector. A flood builb gets hot enough to start a fire.
- Cellophane (left) protects aubject when flash is used for closeup portrait.

paratus plugged in. Pull out all plugs when finished working.

Last we have flash bulbs and photoflood bulbs. Flash bulbs if defective will break when fired, throwing glass, so:

DON'T use a flashbulb close up unless you wrap a piece of clear cellophane around it, or its reflector.

The principle danger with photofloods is in placing a diffusing cloth too close to the bulbs, so:

DON'T use a diffuser without an airspace of at least two inches between reflector and cloth. Fire can start easily otherwise.

DON'T lay your floodlight cords where either your subject or yourself can trip over them.

Let photography continue to be a real pleasure. PLAT IT SAFE! — By H. M. STEINBURG.

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An ordinary printing frame may be used as a print straightener. A number of prints may be placed between blotters, inserted in the frame and left over night.



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## What, No Goldfish?

By BERNARD L. KOBEL

If there are those who believe the placement of the subject is of no importance, or if there are those who enjoy a little photographic trick. let them try this series.

To all appearances, one girl is swallowing







the head of the other, but follow the series along:

No. 1. "GO-ING". College coeds think they can show that boys who swallow goldfish are sissies.

No. 2. "GO-ING". Girl swallowing girl! What a mouthful!



 No. 4. Here's how the camera came to the aid of the spoofing coeds. One head was behind the other all the time!

No. 3. "GONE". Looks like she's done it!

## Photographing Glass

Highlights and reflections that appear in cut glass and other highly polished objects can be eliminated by coating the article to be



photographed with ordinary milk. This is done by either dipping the object into the milk or applying with a sponge. The subject should then be permitted to dry before being photographed. Top photograph shows a cut glass cover photographed without the milk preparation. The lower picture shows the same photographed and lighted in exactly the same position. Note the difference in detail.

Reflections also may be lessened by smearing the glass surface with soft putty. Cut glass ware may be filled with a dark liquid such as ink. A dark background should be used.

—Ray Kershner.





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## MAIL PRINTS

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Use third class for packages weighing less than 8 oz. The postage is 11/2 cents for each two ounces.

Use parcel post for packages weighing more than 8 ozs. The rate is 6 cents per 8 ozs. or fraction thereof plus insurance plus a zone rate which depends on the distance.

Third-class mail and parcel post (fourth class) are governed by the same regulations and handled at the same speed. The only distinction is that of weight. No written matter may be included in these classes except an invoice listing the pictures enclosed. A title may be written on each picture or an identifying number.

Articles, letters or captions describing pictures must go by first-class mail.

Ship by express when packages weigh more than a pound and go more than 500

Faster than these routes, and also more expensive, is first class. Photographs gofirst class if there is a letter enclosed or writing on the back of the print. This includes any written, typewritten or mimeographed material. The first-class rate is 3 cents per ounce.

A duplex envelope solves the problem for economical mailing when it is desired to send a letter or descriptive caption with photographs. A duplex is merely an envelope with two compartments, one for the photographs and a smaller one for the letter or written matter. Photographs may be packed in one envelope, and proper third-class postage attached. Pasted or tied to this envelope is the sealed letter with first-class postage thereon. The prints are tied, not sealed, so they may be opened for postal inspection.

Duplex mailing may be used only in the United States and possessions.

Some photographers send prints by third class and letter to the editor, with an article or captions, by separate mail. This is not recommended because the letter and photographs may not meet on the editor's desk. More effective and equal in cost is duplex mailing as described above.

Whether photographs are being submitted to a newspaper, magazine, or other publication, always include a brief typewritten caption giving names, dates, and all available information which might interest the editor. Many a photograph is rejected because it is unaccompanied by adequate information.

Size of print: Unmounted, 8x10 inch glossy prints are quite standard, but other sizes are acceptable. Semi-matte also can be used. For the purpose of reproduction, prints should be sharp, brilliant and contain detail in highlights and shadows. Otherwise desirable pictures often are rejected because they are gray or unsharp.

Mail prints between cardboard for protection en route. Enclose return postage. Some publications prefer a stamped selfaddressed envelope to be enclosed.

If no other photographer has made your picture and if no duplicate print is submitted at the same time elsewhere, it is advisable to write "EXCLUSIVE" above the caption or on the print.



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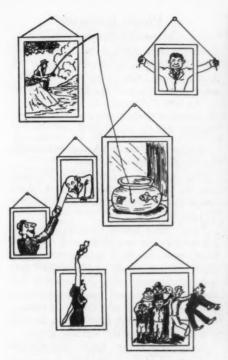
If you think the photo above looks cerle, just glance at the sketches on the next page and imagine how your photographs will look if allowed to run out of their frames!

By L. HOCHMAN Illustrated by the Author

T'S time to turn your imagination loose and let it run riot. Almost any picture can be adapted to the method to be described, but as the most effective results are caricatures, you'll want to work on your file of portrait negatives.

This is how the above runaway photo was made. A suitable frame was placed on the enlarging easel and the negative projected on it large enough for the feet to protrude outside the frame's edge. Three enlargements were made, one of the model and one of each of his feet.

The feet were glued to stiff cardboard and cut out. The model was framed in the usual manner situating it so that the feet would match when attached. Then the feet were tacked to the outside of the frame so as to appear that the model was resting his feet on the edge of the frame.



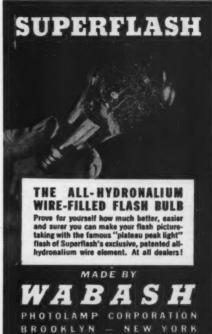
 "It's a frame up" your friends will cry when they see their snapshots going on a rampage.

A separate enlargement must be made of any limb or person that is to extend over the frame.

There is no limit to what you can do with this method and think of the fun when you present your friend with his portrait only to have him discover that his ears or nose was too long and hence protruded from the frame.



Showing how the runaway photo was made. One print was made of the subject, and then two greatly enlarged prints made of his shoes. The latter then were cut out and pasted on the first print.



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#### Photo Fallacies

(Continued from page 43)

ceal the back light, a No. 1 photoflood bulb on the piano bench between the subject and wall. The front light was a No. 1 photoflood in a wall bracket opposite and to the left of the subject. For an example of outdoor backlighting, see the illustration at the top of page 21.

#### Fallacy: That a photograph cannot be made without a lens.

The lens is an important part of a camera, but it is not indispensable. A photograph can be made with a pinhole. (Fig. 1, page 43.)

Many years before cameras were used, images were formed on the wall of a darkened room by light passing through a small opening on the wall opposite. Aristotle understood this phenomenon and Euclid demonstrated the projection of images on the wall of a darkened room of exterior activities, by light passing through a small crevice in the window shutter.

Since these remote times commendable and artistic photographs have been made by piercing the tiniest hole possible in a piece of thin opaque black paper with a red hot needle point and using this perforated paper in place of a lens in the camera. No focusing is required. The image is sharp in all planes; i. e., the pinhole may be as close or as far from the film as the camera will permit.

The closer the pinhole to the film, the wider the angle of view. The images in pinhole photographs have a soft focus quality that is pleasing and in keeping with the esthetic requirements of many pictorial compositions. The pinhole's disadvantage is the long exposure time required-ten seconds or more with the fastest available films. An article on pinhole photography will appear in a future issue of MINICAM.

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## Book Reviews

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SYNCHROFLASH PHOTOGRAPHY, by Willard D. Morgan, 200 pages, 200 illustrations. Morgan & Lester, Publishers.

The possibilities of synchroflash photography are only just beginning to be understood and appreciated. In this book the whole field is carefully and completely explained.

The answers are given to questions such as, What synchronizer should I buy? What flash bulb to use? What exposure for various flash

Other subjects covered are: Multiple flash. Color photography with flash. How to avoid harsh contrasts. How to develop the flash-light negative. Also complete information covering the Abbey Flashgun, the Jacobson Synchronizer, the Kalart Micromatic Speed Flash, the Mendelsohn Speedgun, and all of the flash bulbs in current use.

THE MINIATURE CAMERA IN PROFES-SIONAL HANDS, by Remie Lohse, 117 pages, 6 x 9, 48 full page illustrations, spiral binding. The Studio Publications, Inc., Price, \$1.50.

Remie Lohse, Danish born, American by disposition, was a painter before he became a photographer. In this volume, a narrative and pictorial record of his work, Lohse lets the reader into some of the secrets of his success. The photographs were chosen from among his work as representative of highly varying assignments and features. Each photograph is accompanied with footnotes stating reasons for selection, the conditions under which the picture was taken, and how it was used.

HOW TO TONE PRINTS, by Arthur Hammond, F.R.P.S., Associate Editor American Photography, 72 pages, 51/4 x 71/2, five color prints, American Photographic Publishing Co., Price, 50 cents.

This booklet, number 14, of the Practical Photography Series, deals practically with the problem of toning prints. The working instructions and explanations include various methods of making sepias, such as the method of printing on self-toning paper to obtain a very pleasing sepia.







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Ask for ... At all Camera Stores MY LEICA AND I, edited by Kurt Peter Karfeld, 204 pages, 81/2 x 101/2, 152 fullpage illustrations, published by Photokino-Verlag, distributed by E. Leitz, Inc., Price,

Leica enthusiasts speak of their pictures, while twenty experts explain the effective use of the Leica in the everyday world. Special articles tell of adventures with the Leica in the mountains, on a travel trip, with color, at night, at the theatre, for landscapes, in the family, as a freelance, in sport, with animals, plants, etc. This book claims a distinct difference from all other photographic books on one point: it is the work of amateurs. About 150 pages are devoted to full-page illustrations. Technical data is given with each picture.

#### Movie Talk

(Continued from page 118)

and crew to rest on are booms or cranes. Stagehands who handle the props on a set are called grips.

When an actress takes a voice test they say she is having a tonsil tryout. Stock shots are the films kept in libraries to be added to a movie when needed. If they move the camera dolly up to a scene it's trucking up, and to roll a dolly away from the action, they truck back. When the camera truck moves along with the action it's a running shot.

"Notice how 'camera wise' that actress is," says Elmer, pointing to a beauty. "She's smart and knows how to move about in front of the camera so she will be filmed from the best angles. She is quite different from the camera hog or ham who will milk a scene every time he or she gets a chance. To milk a scene means to overdo the acting."

As you walk along through the huge studio Elmer shows you the building where the special effects men do their work. "Those boys can make anything, from a cobweb to a hurricane," he says. "They also take process shots or transparencies on that stage. In that tricky business they have a screen behind an automobile and when moving scenery is projected on the screen you think the machine is rolling down a highway. This form of projected background is frequently used. The public isn't welcome in that building!"

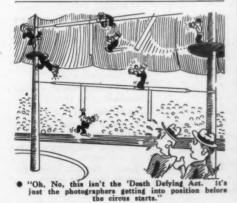
Naturally you are shocked when you see a guy get banged over the head with a chair. But when you learn it's only a breakaway your nerves quiet down. Breakaway chairs are made of Balsa wood and are so constructed that they will fall apart easily and won't hurt actors being hit with them. Bottles used in fight sequences are also called breakaways. They are made of clear, sugar candy that looks like glass.

"They are going to strike this set tomorrow," says Elmer, "That is, to dismantle it. It's easy to move a set that's built with jockey walls. They have a roller like affair constructed on the bottom, back side of them, so all the grips have to do is tilt them a bit and push them away. But first they must rip out the toe-nails-the double-headed nails which are easily pulled out.

"And after they put this stuff they shot today through the soup the flicker will be in the can. Of course, if you are a minicam fan you know that soup is film developer. Being in the can means in metal containers to be shipped to the theaters. The gang on this film are about ready to wrap it up, which means they are through shooting for the day," said the long-winded praise agent.

"And now that you have followed me so closely," concludes Elmer, "Let's go and get a free ride, as we call a meal on the company."

With that we fade-out!



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Cat Walk	Walkway near the ceiling.
Dolly	A small truck on which a camera is mounted.
Dub In	To synchronize previously recorded music with a scene.
Fishpole	A long pole on the end of which a microphone is at- tached.
Free Ride	Meal on the company.
	Chief electrician.
Gobo	Black screen mounted on a

tripod. Used to cast shadow on a player's face.

Grease Room.....Make-up room for extras.

Grip......Stage hand.

High Stuff......Lights near the ceiling.

Juicer.........Assistant electrician.

Juniors......Spotlight intermediate in size
between a baby and a broad.

Kill 'Em......Turn off the lights.

Lily..... Extra good take.

Moviola......Portable projection machine.

Praise Agent.....Mild type of publicity man.

Process Shot..... Scene which will be used as a projected background.

Rushes......Developed takes.

Scoop.....Light with a reflector resembling a shovel.

Scrim.....Large gauze diffuser held to one side of a group of players.

Sheep Herder....Assistant director in charge

of extras.

Shiner..... Reflector about 4 feet square

used in sunlight.

Skirt.....Silk screen diffuser fastened over a spotlight.

Soup......Film developer.
Strike......To dismantle a set.

Tea Cart..... Sound control board or sound

Tonsil Tryout .... Voice test.

Truck Back.......To move the camera on its dolly away from the action.

Truck Up.......To move the camera dolly up to a scene.

Undress 'Em.....Remove the silk screen diffusers from the lights.

Yellow Light ..... Late afternoon sun.

Babies and broads, butterflies and shiners, gobos and dollies —all help to liven up the lingo of the photographer in cineland



- Being sized up for a lunch-counter scene is this stock girl rehearsing for a bit.
- Lots of high stuff (ceiling spotlights) along the catwalks in this rainstorm seeme from Paramount's "Hotel Imperial."



#### MOVIE TALK

By PHILIP H. BAILEY

ET'S suppose you've gotten through the gates of one of Hollywood's huge movie citadels for the first time. And perhaps your guide is a praise agent, at least we hope he is not a blast artist. The former is a mild press agent, while the latter is the rip-roaring type as often depicted on the screen. Well, this chap soon learns you don't know much about this strange lingo of movie land and so he starts out to give you the lowdown.

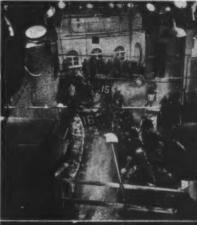
"Hit 'em!" a gaffer is yelling to the juicers when

you arrive on the first set.

"Don't look so surprised, buddy," says Elmer, our kind publicity friend. "That's just the head electrician shouting at his assistants up in the catwalks to turn on all the lights. The catwalks are those parallel walkways up there near the ceiling. See how that 'bank' of spotlights are arranged on them. 'High stuff' is another name for the lighting equipment up there. Soon as this scene is shot the gaffer or his best boy, that's the title of his first assistant, will yell, "kill 'em!" and the high stuff will be shut off.

"Spank that baby," continues the sweating gaffer, pointing to a small spotlight he wants lowered a few notches. Before you realize it's the baby spot-

• The cameramen (right) ride on the end of a boom or crane.





light he is talking about you may find yourself staring around for a Baby Le Roy or a chorus cutie.

There is a story around Hollywood, says Elmer, about some old maids who happened to be on a set for the first time when a gaffer shouted, "pull the skirts off those broads!" The old girls fainted. Script girls never get excited when they hear this as they know the electrician is only directing his men to remove the silk screens from the big broad lights. This is sometimes shortened to, "undress 'em!"

Spotlights somewhat smaller than broads are called juniors. A scoop is a light with a reflector that somewhat resembles a shovel. These movie lights are always changing. Since they have introduced the new high-speed films they don't need as many lights. It is now a lot easier on the players' eyes as many used to suffer from klieg eyes. This is a bad eye inflammation caused by the strong lights.

"Bring my tea cart over here," directs a man who is adjusting a pair of earphones on his head.

"He is the sound mixer," speaks up Elmer, before you have a chance to ask. "That tea cart is his control board and is mounted on rollers. In a couple minutes he will be telling his assistants where to place the fishpole, a hand boom on the end of which the mike or microphone, dangles over the players' heads.

"There is a lot of faking done in the sounds you hear on the screen. In these



There is plenty of movie lingo in this still of Paramount's new film, "One-Third of a Nation." Sylvia Sidney is seen at the right. The camera is mounted on a dolly. The covering over the camera is the blimp or bessy. Those dark screens are gobos.

big song and dance numbers the stars have usually done their singing days before the scene is shot. They sing in the recording studios where they can read the music. This is recorded on wax as phonograph records are called or on sound track film, depending on which process the studio uses. These recordings are later run on playback machines as the actual scene is being shot. The stars then go through all the motions of singing. It's the sound mixer's job to dub in this music and get it synchronized with the action," said the film praiser.

"Something's up!" exclaims Elmer, "look at that guy tapping the furniture over there. He is an echo hunter. The sensitive mike has picked up some wild sounds. He will probably have to cover something with sound-resisting felt before they can shoot this scene, so let's get

along to another set."

• Projection machine specially built to dub is special sounds at the Metro-Goldwyn - Mayer studios. Instead of using the conventional reel, the sound track is looped over rollers.

 Mary Carlisle was getting ready for the camera when this was snapped from beneath a skiner, or sun reflector. By Philip Bailey.

• When the sunlight is weak they use the "character lights." A soundman is using an extra long "fishpole" or sound boom. From 20th Century-Fox.









Catwalker's view — most comprehensive view of the scene and company is obtained by the faicer, or electrician who works on a catwalk 30 feet above the stage. Lower right shows the horn used for playbacks in the recording of music.



e Stable hands at Santa Anita are often entertained by watching movie companies making racing mevies. Here the Republic Picture Co. are making "Fighting Thoroughbreds." A grip is holding a butterfly over

On outdoor sets you find a lot more movie slanguage. When you hear an assistant director yelling for the butterfty you'll learn it's a large disk of gauze mounted on a long pole. A grip holds this over the star's head in somewhat the same way slaves used to hold fans for Cleopatra. This gauze disk diffuses the sunlight. When there are a number of players in an outdoor scene, and they wish to diffuse the sunlight, they use a scrim, which is a huge square of gauze held above or at one side of the players and out of camera range.

There are four different kinds of shiners or sun reflectors. They are about four feet square and usually mounted on adjustable tripods. One type of shiner is covered with lead foil and gives a hot light. Another is covered with silver leaf and casts a soft light. The ones covered with gold leaf or gold foil reflect a yellow light and they say they can't be used on Technicolor films.

Shiners help out a lot in making pictures outdoors. They cast various types of light in the players' faces. If you take a lot of posed pictures or movies outdoors you might build yourself two or three reflectors like these. About all you need to do to make a crude sun reflector is to get a large square board or piece of heavy cardboard and paint one side with gold or silver gilt. Or you can save lead foil and paste it on. Hollywood reflectors are usually made with one side of one type covering and the other side another.

If sunlight happens to be a little weak they use character lights. These big lights are also often called thirty-sixes which means the light is three feet across the face with a three-foot reflector. These huge lights also help cameramen to get pictures in the shade or during the yellow light, as the late afternoon sun is labeled.



 A Standing board serves to protest Danielle Darrieux's ermine wrap during the shooting of "The Rage of Paris" at Universal Studios. Photo by Roman Freulich.



 The white square seen behind the players is a skiner (above).
 Reflectors are standard equipment for all outdoor shooting.



When cameramen want to cast a shadow over a player, he calls for a gobo—a black screen, of varying size mounted on a tripod. An assistant director who is in charge of a large group of extras is often called a sheepherder or lung man. Places where extras make-up their faces are grease rooms.

When players have finished rehearsals for the coming scene the assistant director shouts, "Silence, turn 'em!" On an outdoor set or a big indoor set, this is usually followed by whistles from the officers on duty. At this call the actors clear their throats and adjust their neckties. The motors are rolling a few seconds later when the soundman yells, "Speed!" This is followed by the director's "Action, camera!" With this, filming begins.

These calls may vary a little at different studios. Directors often have their pet calls. Some yell, "Roll 'em," or, "Let 'em spin" to begin the shooting. When a director is satisfied with a take he tells his cameramen, "Print that one." If he thinks it's an extra good take he says it's a lily.

Next morning, director and producer view the rushes, as developed takes are called, in a projection room. Satisfactory takes are put in a box and sent to the cutters. The head cutter is the film editor. M-G-M has a Moviola machine, which is a portable projection machine that can be used on sound stages to show the cotor his work in previous scenes. This outfit helps match up scenes so as to reveal whether the actor is holding his hat in his right or left hand as he entered a door.

Players wearing fancy costumes couldn't sit down between scenes for fear of wrinkling them, until some smart person invented "standing boards." These give actors something restful to lean against.

The blue glass is used by cameramen in gauging the light. Small trucks on which cameras are mounted are dollies. Large trucks that have huge, steel extended arms, like a steam shovel, for the camera

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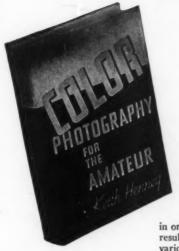
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